

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1045	(analytical with report\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:16
L2	100	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:20
L3	66	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:20
L4	31	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:21
L5	30	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4 and quer\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:21
L6	1	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4 and quer\$4 and (metadata with object\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:22
L7	27	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4 and quer\$4 and metadata	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:22
L8	27	((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4 and quer\$4 and metadata and object\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:23

## EAST Search History

L9	23	(((analytical with report\$1) and ((multidimension\$2 or "two dimension" or "multi-dimension" or "multi-dimentional") with database) and (data with model)) and pars\$4) and quer\$4 and metadata and object\$1) and "707"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/19 22:23
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Set	Items	Description
S1	38748	RDBMS OR RDB OR RELATIONAL() (DATABASE? OR DATA()BASE? OR D-B)
S2	2321385	DIMENSION?
S3	5325516	REPORT? OR BLOCK? ? OR OBJECT? OR OLAP? OR ANALYTIC?()REPORT?
S4	21004	DRILLDOWN OR DRILL?()DOWN? OR DATAMIN? OR DATA()MINING?
S5	19617	((MULTI OR 3 OR THREE)() (DIMENSION?) OR 3D OR THREED)() (DB OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?)) OR DATACUBE? OR HYPERCUBE? OR (DATA OR HYPER)()CUBE?
S6	79	S1 AND (S2 OR S5) AND S3 AND S4
S7	1295	S1 AND (S2 OR S5)
S8	534	S7 AND S3
S9	119	S7 AND S4
S10	535536	DRAG? OR DROP? OR XML OR CLICK? OR CUT(N)PASTE OR GUI OR GRAPHICAL()USER()INTERFACE?
S11	56	S7 AND S10
S12	605	S6 OR S8 OR S9 OR S11
S13	8	(MICROSOFT OR MS)()OLAP OR COGNOS()CUBE?
S14	12616938	REPORT? OR RESULT? OR REPLY OR REPLIES
S15	38	S6 AND S14
S16	7	S6 AND S10
S17	52	S13 OR S15 OR S16
S18	39	RD (unique items)
S19	30	S18 NOT PY>2000
S20	29	S19 NOT PD>20000403
S21	3	S13 NOT S20
File	8:EI	<u>Compendex(R)</u> 1970-2003/Mar W4 (c) 2003 Elsevier Eng. Info. Inc.
File	35:	<u>Dissertation Abs Online</u> 1861-2003/Feb (c) 2003 ProQuest Info&Learning
File	202:	<u>Info. Sci. &amp; Tech. Abs.</u> 1966-2003/Mar 05 (c) Information Today, Inc
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File	144:	<u>Pascal</u> 1973-2003/Mar W4 (c) 2003 INIST/CNRS
File	434:	<u>SciSearch(R)</u> Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File	34:	<u>SciSearch(R)</u> Cited Ref Sci 1990-2003/Mar W4 (c) 2003 Inst for Sci Info
File	99:	<u>Wilson Appl. Sci &amp; Tech Abs</u> 1983-2003/Feb (c) 2003 The HW Wilson Co.
File	95:	<u>TEME-Technology &amp; Management</u> 1989-2003/Mar W2 (c) 2003 FIZ TECHNIK

21/5/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
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7077335 INSPEC Abstract Number: C2001-12-6160-004

Title: iDiff: informative summarization of differences in multidimensional aggregates

Author(s): Sarawagi, S.

Author Affiliation: Indian Inst. of Technol., Bombay, India

Journal: Data Mining and Knowledge Discovery vol.5, no.4 p.255-76

Publisher: Kluwer Academic Publishers,

Publication Date: 2001 Country of Publication: Netherlands

CODEN: DMKDFF ISSN: 1384-5810

SICI: 1384-5810(2001)5:4L:255:IISD;1-C

Material Identity Number: G116-2001-003

U.S. Copyright Clearance Center Code: 1384-5810/2001/\$19.50

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Theoretical (T)

Abstract: Multidimensional OLAP products provide an excellent opportunity for integrating mining functionality because of their widespread acceptance as a decision support tool and their existing heavy reliance on manual, user-driven analysis. Most OLAP products are rather simplistic and rely heavily on the user's intuition to manually drive the discovery process. Such ad hoc user-driven exploration gets tedious and error-prone as data dimensionality and size increases. Our goal is to automate these manual discovery processes. We present an example of such automation through an iDiff operator that in a single step returns summarized reasons for drops or increases observed at an aggregated level. We formulate this as a problem of summarizing the difference between two multidimensional arrays of real numbers. We develop a general framework for such summarization and propose a specific formulation for the case of OLAP aggregates. We develop an information theoretic formulation for expressing the reasons that is compact and easy to interpret. We design an efficient dynamic programming algorithm that requires only one pass of the data and uses a small amount of memory independent of the data size. This allows easy integration with existing OLAP products. Our prototype has been tested on the Microsoft OLAP server, DB2/UDB and Oracle 8i. Experiments using the OLAP benchmark demonstrate (1) scalability of our algorithm as the size and dimensionality of the cube increases and (2) feasibility of getting interactive answers with modest hardware resources. (20 Refs)

Subfile: C

Descriptors: data mining; dynamic programming; information theory

Identifiers: iDiff; informative summarization of differences; multidimensional aggregates; multidimensional OLAP products; mining functionality; decision support tool; user-driven analysis; summarized reasons; information theoretic formulation; dynamic programming algorithm; Microsoft OLAP server; DB2/UDB; Oracle 8i; scalability; interactive answers

Class Codes: C6160 (Database management systems (DBMS)); C1180 (Optimisation techniques); C1260 (Information theory)

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21/5/2 (Item 1 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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09860051 Genuine Article#: 458ZK Number of References: 18

Title: iDiff: Informative summarization of differences in multidimensional aggregates

Author(s): Sarawagi S (REPRINT)

Corporate Source: Indian Inst Technol, Bombay 400076/Maharashtra/India/ (REPRINT); Indian Inst Technol, Bombay 400076/Maharashtra/India/

Journal: DATA MINING AND KNOWLEDGE DISCOVERY, 2001, V5, N4, P255-276

ISSN: 1384-5810 Publication date: 20010000

Publisher: KLUWER ACADEMIC PUBL, SPUIBOULEVARD 50, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS

Language: English Document Type: ARTICLE

Geographic Location: India

Journal Subject Category: COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE;  
COMPUTER SCIENCE, INFORMATION SYSTEMS

**Abstract:** Multidimensional OLAP products provide an excellent opportunity for integrating mining functionality because of their widespread acceptance as a decision support tool and their existing heavy reliance on manual, user-driven analysis. Most OLAP products are rather simplistic and rely heavily on the user's intuition to manually drive the discovery process. Such ad hoc user-driven exploration gets tedious and error-prone as data dimensionality and size increases. Our goal is to automate these manual discovery processes. In this paper we present an example of such automation through a iDiff operator that in a single step returns summarized reasons for drops or increases observed at an aggregated level.

We formulate this as a problem of summarizing the difference between two multidimensional arrays of real numbers. We develop a general framework for such summarization and propose a specific formulation for the case of OLAP aggregates. We develop an information theoretic formulation for expressing the reasons that is compact and easy to interpret. We design an efficient dynamic programming algorithm that requires only one pass of the data and uses a small amount of memory independent of the data size. This allows easy integration with existing OLAP products. Our prototype has been tested on the Microsoft OLAP server, DB2/UDB and Oracle 8i. Experiments using the OLAP benchmark demonstrate (1) scalability of our algorithm as the size and dimensionality of the cube increases and (2) feasibility of getting interactive answers with modest hardware resources.

**Descriptors--Author Keywords:** multidimensional databases ; OLAP ; OLAP-mining integration ; difference mining ; data summarization ; advanced aggregates

**Cited References:**

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21/5/3 (Item 1 from file: 95)  
DIALOG(R)File 95:TEME-Technology & Management  
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01555626 20011008965

**iDiff: informative summarization of differences in multidimensional aggregates**

Sarawagi, S

Indian Inst. of Technol., Bombay, IND

Data Mining and Knowledge Discovery, v5, n4, pp255-276, 2001

Document type: journal article Language: English

Record type: Abstract

ISSN: 1384-5810

**ABSTRACT:**

Multidimensional OLAP products provide an excellent opportunity for

integrating mining functionality because of their widespread acceptance as a decision support tool and their existing heavy reliance on manual, user-driven analysis. Most OLAP products are rather simplistic and rely heavily on the user's intuition to manually drive the discovery process. Such ad hoc user-driven exploration gets tedious and error-prone as data dimensionality and size increases. Our goal is to automate these manual discovery processes. We present an example of such automation through an iDiff operator that in a single step returns summarized reasons for drops or increases observed at an aggregated level. We formulate this as a problem of summarizing the difference between two multidimensional arrays of real numbers. We develop a general framework for such summarization and propose a specific formulation for the case of OLAP aggregates. We develop an information theoretic formulation for expressing the reasons that is compact and easy to interpret. We design an efficient dynamic programming algorithm that requires only one pass of the data and uses a small amount of memory independent of the data size. This allows easy integration with existing OLAP products. Our prototype has been tested on the Microsoft OLAP server, DB2/UDB and Oracle 8i. Experiments using the OLAP benchmark demonstrate (1) scalability of our algorithm as the size and dimensionality of the cube increases and (2) feasibility of getting interactive answers with modest hardware resources.

DESCRIPTORS: DYNAMIC PROGRAMMING; INFORMATION THEORY; DECISION SUPPORT SYSTEM

IDENTIFIERS: DATENGEWINNUNG; MEHRDIMENSIONALE GESAMTMENGE; FUNKTIONALITAET; PROGRAMMIERUNGsalgorithmus; SKALIERBARKEIT; INTERAKTIVE ANTWORT; Dynamische Programmierung; Informationstheorie

20/5/1 (Item 1 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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05777570 E.I. No: EIP01025505381

Title: Object -based selective materialization for efficient implementation of spatial data cubes

Author: Stefanovic, Nebojsa; Han, Jiawei; Koperski, Krzysztof

Corporate Source: Seagate Software, Vancouver, BC, Can

Source: IEEE Transactions on Knowledge and Data Engineering v 12 n 6 Nov 2000. p 938-958

Publication Year: 2000

CODEN: ITKEEH ISSN: 1041-4347

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 0103W2

Abstract: With a huge amount of data stored in spatial databases and the introduction of spatial components to many relational or object - relational databases , it is important to study the methods for spatial data warehousing and OLAP of spatial data. In this paper, we study methods for spatial OLAP , by integration of nonspatial OLAP methods with spatial database implementation techniques. A spatial data warehouse model, which consists of both spatial and nonspatial dimensions and measures, is proposed. Methods for computation of spatial data cubes and analytical processing on such spatial data cubes are studied, with several strategies proposed, including approximation and selective materialization of the spatial objects resulted from spatial OLAP operations. The focus of our study is on a method for spatial cube construction, called object -based selective materialization, which is different from cuboid-based selective materialization proposed in previous studies of nonspatial data cube construction. Rather than using a cuboid as an atomic structure during the selective materialization, we explore granularity on a much finer level, that of a single cell of a cuboid. Several algorithms are proposed for object -based selective materialization of spatial data cubes and the performance study has demonstrated the effectiveness of these techniques. (Author abstract) 25 Refs.

Descriptors: Database systems; Data warehouses; Data processing; Mathematical models; Algorithms; Data mining ; Performance

Identifiers: Spatial databases; Object based selective materialization;

Online analytical processing

Classification Codes:

723.3 (Database Systems); 723.2 (Data Processing); 921.6 (Numerical Methods)

723 (Computer Software); 921 (Applied Mathematics)

72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

20/5/2 (Item 2 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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05300123 E.I. No: EIP99064701264

Title: Ad hoc OLAP : expression and evaluation

Author: Chatziantoniou, Damianos

Corporate Source: Stevens Inst of Technology

Conference Title: Proceedings of the 1999 15th International Conference on Data Engineering, ICDE-99

Conference Location: Sydney, NSW, AUS Conference Date: 19990323-19990326

Sponsor: IEEE

E.I. Conference No.: 55096

Source: Proceedings - International Conference on Data Engineering 1999.

p 250

Publication Year: 1999

CODEN: PIDEEG

Language: English

Document Type: JA; (Journal Article) Treatment: A; (Applications)

Journal Announcement: 9908W1

Abstract: Users frequently formulate complex data analysis queries in order to identify interesting trends, make unusual patterns stand out, or verify hypotheses. Being able to express these data mining queries concisely is of major importance not only from the user's, but also from the system's point of view. Recent research in OLAP has focused on **datacubes** and their applications; however, expression and processing of ad hoc decision support queries has been given very little attention. In this paper we present an appropriate framework for these queries and introduce a syntactic construct to support it. This SQL extension allows most OLAP queries, such as pivoting, complex intra- and inter-group comparisons, trends and hierarchical comparisons, to be expressed in a compact, intuitive and simple manner. This succinct representation of a complex OLAP query translates immediately to a novel, simple and efficient evaluation algorithm. We show how to optimize, analyze and parallelize this algorithm and discuss issues such as multiple query analysis and scaling. We present several experimental results of real-life queries that show orders of magnitude of performance improvement. We argue that this tight coupling between representation and algorithm is essential to efficient processing of ad hoc OLAP queries. (Author abstract) 1 Refs.

Descriptors: Query languages; Data mining ; Parallel algorithms; Relational database systems; User interfaces

Identifiers: SQL; OLAP

Classification Codes:

723.3 (Database Systems); 723.1 (Computer Programming); 723.2 (Data Processing); 722.2 (Computer Peripheral Equipment)

723 (Computer Software); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING)

20/5/3 (Item 3 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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05295152 E.I. No: EIP99064690771

Title: Intelligent system to study demographic evolution

Author: de Fatima Rodrigues, M.; Ramos, Carlos; Henriques, Pedro Rangel

Corporate Source: Polytechnic Inst of Porto, Porto, Port

Conference Title: Proceedings of the 1999 Data Mining and Knowledge Discovery: Theory, Tools, and Technology

Conference Location: Orlando, FL, USA Conference Date:  
19990405-19990406

Sponsor: SPIE

E.I. Conference No.: 55097

Source: Proceedings of SPIE - The International Society for Optical Engineering v 3695 1999. p 161-170

Publication Year: 1999

CODEN: PSISDG ISSN: 0277-786X

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 9907W4

Abstract: An Intelligent System to Study Demographic Evolution (ISSDE), which is a module based on online analytical processing ( OLAP ) that permits to do multiple analysis combining many data dimensions is presented. It has a deductive database system that allows the execution of elaborated queries through the database. The advantages of combining attribute value generalization with rough set theory to find a subset of attributes that lets the mining process discover more useful patterns by providing results from the application of the C5.0 algorithm in a demographic relational database are discussed. 12 Refs.

Descriptors: Data mining ; Relational database systems; Artificial intelligence; Data structures; Data reduction; Knowledge representation; Knowledge acquisition; Query languages; Set theory; Learning algorithms

Identifiers: Online analytical processing ( OLAP ); Deductive database systems; Rough set theory; Demographic evolutions

Classification Codes:

723.2 (Data Processing); 723.3 (Database Systems); 723.4 (Artificial Intelligence); 921.4 (Combinatorial Mathematics, Includes Graph Theory, Set Theory); 722.4 (Digital Computers & Systems)

723 (Computer Software); 921 (Applied Mathematics); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

20/5/4 (Item 4 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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05279445 E.I. No: EIP99054668766

Title: Deriving orthogonality to optimize the search for summary data

Author: Wang, X. Sean; Li, Chang

Corporate Source: George Mason Univ, Fairfax, VA, USA

Source: Information Systems v 24 n 1 Mar 1999. p 47-65

Publication Year: 1999

Language: English

Document Type: JA; (Journal Article) Treatment: A; (Applications); G; (General Review)

Journal Announcement: 9906W5

Abstract: An effective optimization strategy for evaluating statistical queries is to use pre-computed summary data on certain categories. An important step in this strategy is to compare categories for containment in order to decide whether the summary data on one category can be used to compute the summary on another. This paper studies optimization for such comparisons. A category in this paper is represented by a relation whose attributes are partitioned into pair-wise disjoint sets, each called a dimension . A category is said to be orthogonal if it is equal to the cross product of the projections of itself on all the dimensions , and k-partially orthogonal if it is the union of k orthogonal ones. Comparing k-partially orthogonal categories for containment is computationally much easier than comparing arbitrary categories if k is small and all the orthogonal subcategories are known. It is shown however that it is computationally intractable (NP-hard) to partition an arbitrarily given category into the smallest number of orthogonal subcategories. In order to avoid this intractable task but still take advantage of orthogonality, this paper investigates methods that derive orthogonality in categories which are results of relational queries, assuming the orthogonality in input categories is known. The methods are based on a careful examination of each relational operation and on certain auxiliary constructs for labelling



orthogonal subcategories. (Author abstract)

Descriptors: Query languages; Relational database systems; Data mining ; Data structures; Computational complexity; Online systems; Optimization; Information theory

Identifiers: Online analytical processing ( OLAP ); Statistical databases ; Relational queries

Classification Codes:

723.3 (Database Systems); 723.2 (Data Processing); 721.1 (Computer Theory, Includes Formal Logic, Automata Theory, Switching Theory, Programming Theory); 722.4 (Digital Computers & Systems); 921.5 (Optimization Techniques); 716.1 (Information & Communication Theory)  
723 (Computer Software); 721 (Computer Circuits & Logic Elements); 722 (Computer Hardware); 921 (Applied Mathematics); 716 (Radar, Radio & TV Electronic Equipment)  
72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS); 71 (ELECTRONICS & COMMUNICATIONS)

20/5/5 (Item 5 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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05020989 E.I. No: EIP98054211084

Title: High performance data mining using data cubes on parallel computers

Author: Goil, Sanjay; Choudhary, Alok

Corporate Source: Northwestern Univ, Evanston, IL, USA

Conference Title: Proceedings of the 1998 12th International Parallel Processing Symposium and 9th Symposium on Parallel and Distributed Processing

Conference Location: Orlando, FL, USA Conference Date: 19980330-19980403

Sponsor: IEEE

E.I. Conference No.: 48377

Source: Proceedings of the International Parallel Processing Symposium, IPSPS 1998. IEEE Comp Soc, Los Alamitos, CA, USA. p 548-555

Publication Year: 1998

CODEN: PSPDF8 ISSN: 1063-7133

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9807W3

Abstract: On-Line Analytical Processing techniques are used for data analysis and decision support systems. The multidimensionality of the underlying data is well represented by multidimensional databases. For data mining in knowledge discovery, OLAP calculations can be effectively used. For these, high performance parallel systems are required to provide interactive analysis. Precomputed aggregate calculations in a Data Cube can provide efficient query processing for OLAP applications. In this article, we present parallel data cube construction on distributed-memory parallel computers from a relational database. Data Cube is used for data mining of associations using Attribute Focusing. Results are presented for these on the IBM-SP2, which show that our algorithms and techniques are scalable to a large number of processors, providing a high performance platform for such applications. (Author abstract) 14 Refs.

Descriptors: Parallel processing systems; Data acquisition; Online systems; Relational database systems; Data storage equipment; Algorithms; Query languages; Knowledge acquisition; Response time (computer systems); Interactive computer systems

Identifiers: Data mining ; Data cubes ; Online analytical processing ( OLAP ) systems; Knowledge discovery

Classification Codes:

722.4 (Digital Computers & Systems); 723.2 (Data Processing); 723.3 (Database Systems); 722.1 (Data Storage, Equipment & Techniques); 723.4 (Artificial Intelligence)

722 (Computer Hardware); 723 (Computer Software)

72 (COMPUTERS & DATA PROCESSING)

20/5/6 (Item 1 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01706796 ORDER NO: AADMQ-37498

**STATISTICAL APPROACHES TO PREDICTIVE MODELING IN LARGE DATABASES**

Author: CHENG, SHAN

Degree: M.SC.

Year: 1998

Corporate Source/Institution: SIMON FRASER UNIVERSITY (CANADA) (0791)

Adviser: JIAWEI HAN

Source: VOLUME 37/06 of MASTERS ABSTRACTS.

PAGE 1872. 94 PAGES

Descriptors: COMPUTER SCIENCE ; INFORMATION SCIENCE ; STATISTICS

Descriptor Codes: 0984; 0723; 0463

ISBN: 0-612-37498-X

Prediction, i.e., predicting the potential values or value distributions of certain attributes for objects in a database or data warehouse, is an attractive goal in data mining. To predict future events not shown in databases with high quality can help users to make smart business decisions. With the concern of both scalability and high quality of prediction, we propose a predictive modeling algorithm for interactive prediction in large databases and data warehouses.

The algorithm consists of three steps: (1) data generalization, which converts data in relational databases or data warehouses into a multi-dimensional databases to which efficient analysis techniques can be applied; (2) relevance analysis, which identifies the attributes that are highly relevant to the prediction, to reduce number of attributes in prediction with the benefits in improving both efficiency and reliability of prediction; and (3) a statistical regression model, called generalized linear model, is constructed for high quality prediction. We explore two types of model featuring different problems.

Moreover, with this method, a user can interact with a data mining system by presenting probes with constants at different levels of abstraction and attempt to predict values of a predicted attribute at different levels of abstraction. Also, a user may drill-down or roll-up along any attribute dimensions and then do prediction analysis. Our analysis and experimental results show that the method provides high prediction quality with modest or intermediate data generalization and it leads to efficient, interactive prediction in large databases.

20/5/7 (Item 2 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01624813 ORDER NO: AADMQ-24244

**DESIGN AND IMPLEMENTATION OF ON-LINE ANALYTICAL PROCESSING ( OLAP ) OF SPATIAL DATA**

Author: STEFANOVIC, NEBOJSA

Degree: M.SC.

Year: 1997

Corporate Source/Institution: SIMON FRASER UNIVERSITY (CANADA) (0791)

Adviser: JIAWEI HAN

Source: VOLUME 36/03 of MASTERS ABSTRACTS.

PAGE 815. 108 PAGES

Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

ISBN: 0-612-24244-7

On-line analytical processing ( OLAP ) has gained its popularity in database industry. With a huge amount of data stored in spatial databases and the introduction of spatial components to many relational or object-relational databases, it is important to study the methods for spatial data warehousing and on-line analytical processing of spatial data. This thesis investigates methods for spatial OLAP, by integration of

nonspatial on-line analytical processing ( OLAP ) methods with spatial database implementation techniques. A spatial data warehouse model, which consists of both spatial and nonspatial dimensions and measures, is proposed. Methods for computation of spatial data cubes and analytical processing on such spatial data cubes are studied, with several strategies proposed, including approximation and partial materialization of the spatial objects resulting from spatial OLAP operations. Some techniques for selective materialization of the spatial computation results are worked out, and the performance study has demonstrated the effectiveness of these techniques. Spatial OLAP has been partially implemented as a part of GeoMiner, a system prototype for spatial data mining .

20/5/8 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6900021 INSPEC Abstract Number: C2001-05-6160D-005

Title: An alternative relational OLAP modeling approach

Author(s): Bauer, A.; Hummer, W.; Lehner, W.

Author Affiliation: Database Syst., Erlangen-Nurnberg Univ., Germany

Conference Title: Data Warehousing and Knowledge Discovery. Second International Conference, DaWaK 2000. Proceedings (Lecture Notes in Computer Science Vol.1874) p.189-98

Editor(s): Kambayashi, Y.; Mohania, M.; Min Tjoa, A.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 2000 Country of Publication: Germany xii+438 pp.

ISBN: 3 540 67980 4 Material Identity Number: XX-2000-02589

Conference Title: Data Warehousing and Knowledge Discovery. Second International Conference, DaWaK 2000

Conference Date: 4-6 Sept. 2000 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P); Theoretical (T)

Abstract: Schema design is one of the fundamentals in database theory, and practice as well. In this paper, we discuss the problem of locally valid dimensional attributes in a classification hierarchy of a typical OLAP scenario. In a first step, we show that the traditional star-and-snowflake schema approach is not feasible in this very natural case of a hierarchy. Therefore, we sketch two alternative modeling approaches, resulting in practical solutions and a seamless extension of the traditional star/snowflake schema approach. In the first, purely relational approach, we replace each dimension table of a star/snowflake schema by a set of views directly reflecting the classification hierarchy. The second approach takes advantage of object-relational extensions. Using object-relational techniques in the context of the relational representation of a multidimensional OLAP scenario is a novel approach and promises a clean and smooth schema design. (13 Refs)

Subfile: C

Descriptors: classification; data mining ; database theory; object-oriented databases; relational databases

Identifiers: relational OLAP modeling approach; database schema design; database theory; locally valid dimensional attributes; classification hierarchy; star/snowflake schema; dimension table; database views; object-relational extensions; multidimensional OLAP scenario; online analytical processing

Class Codes: C6160D (Relational databases); C6130 (Data handling techniques); C6160J (Object-oriented databases); C4250 (Database theory)

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20/5/9 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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6758047 INSPEC Abstract Number: C2000-12-7100-085

Title: Itanium Rising [Intel IA-64 family]

Author(s): Kestelyn, J.

Journal: Intelligent Enterprise vol.3, no.15 p.54-7  
Publisher: CMP Media Inc,  
Publication Date: 20 Sept. 2000 Country of Publication: USA  
CODEN: INENF7 ISSN: 1524-3621  
SICI: 1524-3621(20000920)3:15L:54:IRIF;1-6  
Material Identity Number: H211-2000-016  
Language: English Document Type: Journal Paper (JP)  
Treatment: Practical (P)

Abstract: As the first member of Intel's IA-64 family, slated for general availability in Q4 2000, Itanium is an important vehicle for Intel's data center aspirations. Whether you want to call it a RISC killer or dead on arrival, you have to accept that it may strongly influence business processes. Just as Microsoft OLAP Services delivered data analytics to an entirely new audience, Itanium's price-performance ratio may put the computing power e-business and business intelligence requires into the hands of the have-nots for the first time. The paper considers how IA-64 represents a strategic leap not only for Intel, but also for the business and IT executives who will be evaluating it as a deployment platform for their business-critical applications. (0 Refs)

Subfile: C

Descriptors: business data processing; data warehouses; microcomputers; microprocessor chips

Identifiers: Intel IA-64; Itanium; data center; price-performance ratio; electronic business; business intelligence; business-critical applications; data warehouses

Class Codes: C7100 (Business and administration); C5430 (Microcomputers); C5130 (Microprocessor chips)

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20/5/10 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6656907 INSPEC Abstract Number: C2000-09-6160D-004

Title: Transmitting datacubes over congested networks

Author(s): Albanese, A.; Cannataro, M.; Rullo, P.; Sacca, D.

Author Affiliation: RealTime Inf., Berkeley, CA, USA

Conference Title: Proceedings International Conference on Information Technology: Coding and Computing (Cat. No.PR00540) p.360-5

Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA

Publication Date: 2000 Country of Publication: USA xvi+528 pp.

ISBN: 0 7695 0540 6 Material Identity Number: XX-2000-01050

U.S. Copyright Clearance Center Code: 0 7695 0540 6/2000/\$10.00

Conference Title: Proceedings International Conference on Information Technology: Coding and Computing. ITCC 2000

Conference Sponsor: IEEE Comput. Soc

Conference Date: 27-29 March 2000 Conference Location: Las Vegas, NV, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Online analytical processing is an emerging technique for the implementation of decision support applications that access remote datacubes over information highways. We propose a novel approach for sending datacubes over congested networks, so that, in order to preserve fast response time, some datacube tuples can be eventually lost but yet preserving a good approximation of the overall datacube. The main idea is to prioritize the datacube information and to send it using a priority-based transmission protocol. The proposed method relies on two well-known techniques: the wavelet decomposition, for the encoding of the datacube into a sequence of prioritized coefficients, and the priority encoding transmission protocol, to deliver them. To reconstruct the datacube with a user-defined error level, priorities are assigned using a thresholding technique. Preliminary experimental results are very encouraging. (19 Refs)

Subfile: C

Descriptors: data mining; data structures; information networks; protocols; relational databases

Identifiers: **datacube** transmission; congested networks; online analytical processing; decision support applications; remote **datacubes** ; information highways; fast response time; tuples; priority-based transmission protocol; wavelet decomposition; **OLAP** ; user-defined error level; thresholding technique

Class Codes: C6160D (Relational databases); C6120 (File organisation); C6170K (Knowledge engineering techniques); C7210N (Information networks); C6150N (Distributed systems software)

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20/5/11 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

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6566183 INSPEC Abstract Number: C2000-05-6160Z-023

Title: **Star/snow-flake schema driven object -relational data warehouse design and query processing strategies**

Author(s): Gopalkrishnan, V.; Qing Li; Karlapalem, K.

Author Affiliation: Dept. of Comput. Sci, City Univ. of Hong Kong, Kowloon, Hong Kong

Conference Title: Data Warehousing and Knowledge Discovery. First International Conference, DaWaK'99. Proceedings (Lecture Notes in Computer Science Vol.1676) p.11-22

Editor(s): Mohania, M.; Tjoa, A.M.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1999 Country of Publication: Germany xii+400 pp.

ISBN: 3 540 66458 0 Material Identity Number: XX-1999-02851

Conference Title: Data Warehousing and Knowledge Discovery. First International Conference, DaWaK'99. Proceedings

Conference Date: 30 Aug.-1 Sept. 1999 Conference Location: Florence, Italy

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The conventional star schema model of data warehouses (DW) has its limitations due to the nature of the relational data model. Firstly, this model cannot represent the semantics and operations of multi-dimensional data adequately. Due to the hidden semantics, it is difficult to efficiently address the problems of view design. Secondly, as we move up to higher levels of summary data (multiple complex aggregations), SQL queries do not portray the intuition needed to facilitate building and supporting efficient execution of complex queries on complex data. In light of these issues, we propose the **object -relational view (ORV)** design for DWs. Using **object -oriented (O-O)** methodology, we can explicitly represent the semantics and reuse view (class) definitions based on the ISA hierarchy and the class composition hierarchies, thereby **resulting** in a more efficient view mechanism. Part of the design involves providing a translation mechanism from the star/snowflake schema to an O-O representation. This is done by flattening the fact- **dimension** schema and converting it to a class-composition hierarchy in an O-O framework. Vertically partitioning this O-O schema further increases the efficiency of query execution by reducing disk access. We then build a structural join index hierarchy (SJIH) on this partitioned schema to facilitate complex **object** retrieval and avoid using a sequence of expensive pointer chasing (or join) operations. (15 Refs)

Subfile: C

Descriptors: **data mining** ; data warehouses; **object -oriented** databases; query processing; **relational databases**

Identifiers: star/snow-flake schema driven **object -relational data** warehouse design; query processing strategies; relational data model; multi- **dimensional** data; hidden semantics; summary data; **object -relational view** design; **object -oriented** methodology; class composition hierarchies; ISA hierarchy; view definitions; translation mechanism; fact- **dimension** schema; query execution; structural join index hierarchy; complex **object** retrieval

Class Codes: C6160Z (Other DBMS); C6160J (Object-oriented databases); C6160D (Relational databases)

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20/5/12 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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6411787 INSPEC Abstract Number: C2000-01-6170T-001

Title: Component-based knowledge engineering architecture

Author(s): Won Kim; Ki-Joon Chae; Dong-Sub Cho; Byoungju Choi; Myung Kim; Ki-Ho Lee; Meejeong Lee; Sang-Ho Lee; Seung-Soo Park; Hwan-Seung Yong

Author Affiliation: Cyber Database Solutions Inc., Austin, TX, USA

Journal: JOOP vol.12, no.6 p.40-8, 70

Publisher: SIGS Publications,

Publication Date: Oct. 1999 Country of Publication: USA

CODEN: JOOPEC ISSN: 0896-8438

SICI: 0896-8438(199910)12:6L:40:CBKE;1-3

Material Identity Number: G316-1999-008

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The Integrated Knowledge Engineering Architecture (IKEA) project is a large-scale advanced research and development project. We see knowledge engineering as the new dimension of the information technology infrastructure. The primary components of knowledge engineering technology include relational database systems, data warehousing systems, decision support and multidimensional data analysis systems, data mining and knowledge discovery systems, Internet XML /HTML document content search mechanisms, and industry-specific applications of data analysis and data mining systems. The objectives of the IKEA project are to address major open research questions in each of these areas and to put together a knowledge engineering architecture platform using component-based software development technology. We envision the knowledge engineering architecture being used to support knowledge applications such as database marketing, fraud detection, personalized electronic commerce, customer relationship management, etc. The IKEA project requires participation from at least six major subdisciplines, including databases, knowledge discovery and reasoning (statistics and artificial intelligence), visualization and human-computer interface, parallel processing, networking and distributed systems, and software engineering. (50 Refs)

Subfile: C

Descriptors: knowledge engineering; object-oriented programming; software tools

Identifiers: component-based knowledge engineering architecture; Integrated Knowledge Engineering Architecture; IKEA project; information technology infrastructure; relational database systems; data warehousing; decision support; multidimensional data analysis; data mining; knowledge discovery; Internet; XML /HTML document content search mechanisms; database marketing; fraud detection; personalized electronic commerce; customer relationship management; reasoning; artificial intelligence; human-computer interface; parallel processing; distributed systems; software engineering

Class Codes: C6170T (Knowledge engineering tools); C6115 (Programming support); C6110J (Object-oriented programming)

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20/5/13 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

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6360301 INSPEC Abstract Number: C1999-11-7810-001

Title: Intelligent system to study demographic evolution

Author(s): Rodrigues, M.; Ramos, C.; Henriques, P.R.

Author Affiliation: Sch. of Eng., Polytech.. Inst. of Porto, Portugal

Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.3695 p.161-70

Publisher: SPIE-Int. Soc. Opt. Eng.,

Publication Date: 1999 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X  
SICI: 0277-786X(1999)3695L:161:ISSD;1-E  
Material Identity Number: C574-1999-135  
U.S. Copyright Clearance Center Code: 0277-786X/99/\$10.00  
Conference Title: Data Mining and Knowledge Discovery: Theory, Tools, and Technology  
Conference Sponsor: SPIE  
Conference Date: 5-6 April 1999 Conference Location: Orlando, FL, USA  
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Practical (P)

Abstract: The study of population behavior implies the manipulation of large amounts of incomplete and imprecise data with high dimensionality. By virtue of its multidisciplinary character, work in demography involves at least historicists, statisticians and computer scientists/programmers. Moreover, successful demographic analysis requires qualified experts, who have succeeded in analysing data through many views and relate different sources of information, including their personal knowledge of the epoch or regions under study. We present an intelligent system to study demographic evolution (ISSDE). This system has a module based on online analytical processing (OLAP), which permits conducting multiple analysis, combining many data dimensions. It has a deductive database system, which allows the execution of elaborated queries through the database. It has another module for data treatment (generalization and/or reduction); and also a data mining module to discover nontrivial relations hidden within data. We discover the data treatment procedure with two phases: data generalization and data reduction. In data generalization, utilizing knowledge about concept hierarchies and relevance of data, aggregation of attribute values is performed. In the data reduction phase, rough set theory is applied to compute the minimal attribute set. We highlight the advantages of combining attribute value generalization with rough set theory, to find a subset of attributes that lets the mining process discover more useful patterns, by providing results from the application of the C5.0 algorithm in a demographic relational database. (12 Refs)

Subfile: C

Descriptors: data mining; deductive databases; demography; knowledge based systems; query processing; relational databases; rough set theory; social sciences computing; statistical analysis

Identifiers: intelligent system; demographic evolution; population behavior; multidisciplinary character; demographic analysis; ISSDE; online analytical processing; OLAP; multiple analysis; data dimension; deductive database system; elaborated queries; data treatment; data mining module; nontrivial relations; data treatment procedure; data generalization; data reduction; concept hierarchies; rough set theory; minimal attribute set; attribute value generalization; C5.0 algorithm; demographic relational database

Class Codes: C7810 (Social and behavioural sciences computing); C7310 (Mathematics computing); C6170K (Knowledge engineering techniques); C6160K (Deductive databases); C4250 (Database theory); C1160 (Combinatorial mathematics); C6160D (Relational databases)

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20/5/14 (Item 7 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6353477 INSPEC Abstract Number: C1999-10-6160Z-026

Title: ScanChunk: an efficient algorithm for hunting dense regions in data cube

Author(s): Zhou Bo

Author Affiliation: Dept. of Comput. Sci. & Eng., Zhejiang Univ., Hangzhou, China

Journal: Chinese Journal of Computers vol.22, no.6 p.620-6

Publisher: Science Press,

Publication Date: June 1999 Country of Publication: China

CODEN: JIXUDT ISSN: 0254-4164

SICI: 0254-4164(199906)22:6L:620:SEAH;1-3

Material Identity Number: B714-1999-008

Language: Chinese Document Type: Journal Paper (JP)

Treatment: Practical (P); Experimental (X)

Abstract: MOLAP and ROLAP are two main approaches for building an OLAP system. MOLAP is good for query performance but suffers from storage inefficiency when the data cube is sparse. ROLAP can be built on mature RDEMS technology but its performance is not as competitive. The paper presents a new data cube structure based on the dense regions. Following the new structure, the MOLAP and ROLAP approaches can be integrated to obtain both high query performance and space efficiency. The core of building the new structure lies in hunting dense regions from raw data. The dense region hunting problem is defined as an optimization problem in this paper. An efficient algorithm named ScanChunk has been developed. The accuracy and complexity of algorithm ScanChunk have been analyzed and extensive performance studies have been performed. The experimental results clearly show that ScanChunk is efficient and effective in locating dense region in a large database. (4 Refs)

Subfile: C

Descriptors: data mining ; data structures; query processing; relational databases ; software performance evaluation; very large databases

Identifiers: ScanChunk; dense region hunting problem; data cube ; MOLAP; ROLAP; OLAP ; query performance; relational database ; optimization; performance studies; experimental results ; large database

Class Codes: C6160Z (Other DBMS); C6160D (Relational databases); C6170K (Knowledge engineering techniques); C6120 (File organisation)

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20/5/15 (Item 8 from file: 2)

DIALOG(R) File 2:INSPEC

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6352685 INSPEC Abstract Number: C1999-10-6160D-010

Title: Hash-based symmetric data structure and join algorithm for OLAP applications

Author(s): Toyama, M.; Ohara, A.

Author Affiliation: Dept. of Inf. & Comput. Eng., Keio Univ., Japan

Conference Title: Proceedings. IDEAS'99. International Database Engineering and Applications Symposium (Cat. No.PR00265) p.231-8

Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA

Publication Date: 1999 Country of Publication: USA xiii+467 pp.

ISBN: 0 7695 0265 2 Material Identity Number: XX-1999-02254

U.S. Copyright Clearance Center Code: 0 7695 0265 2/99/\$10.00

Conference Title: IDEAS '99. International Database Engineering and Applications Symposium

Conference Sponsor: Concordia Univ.; Faculty of Eng. & Comput. Sci.; Dept. Comput. Sci.; IEEE Comput. Soc

Conference Date: 2-4 Aug. 1999 Conference Location: Montreal, Que., Canada

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P); Theoretical (T)

Abstract: The star schema is often used in dimensional approaches applied to OLAP applications. The fact table in the star schema typically contains a huge amount of data. When some of the dimension tables are also very large, it may take too much time and storage to join the fact table with these dimension tables. The performance of the join algorithm becomes critical under such a condition. The fluent join is a join algorithm that operates on relations organized as multidimensional linear hash files. Like a merge join on relations which are already sorted on the joining key, its execution reads each page in the operand relations no more than once and does not create intermediate result files. Unlike sorting, the multi-dimensional linear hash can cluster records in several keys symmetrically. In this paper, the concept of the fluent join is applied to an OLAP system to cluster records in each table on the joining keys. As a result, the algorithm yields symmetric performances on joins with different dimension tables. (18 Refs)

Subfile: C



Descriptors: data mining ; data structures; database theory;  
relational databases ; software performance evaluation  
Identifiers: star schema; hash-based symmetric data structure; OLAP  
applications; performance; fact table; dimension tables; fluent join  
algorithm; record clustering; multidimensional linear hash files; merge  
join; joining key; operand relations  
Class Codes: C6160D (Relational databases); C6120 (File organisation);  
C4250 (Database theory)  
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20/5/16 (Item 9 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6346553 INSPEC Abstract Number: C1999-10-6160B-011  
Title: An infrastructure for scalable parallel multidimensional analysis  
Author(s): Goil, S.; Choudhary, A.  
Author Affiliation: Technol. Inst., Northwestern Univ., Evanston, IL, USA  
Conference Title: Proceedings. Eleventh International Conference on  
Scientific and Statistical Database Management p.102-11  
Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA  
Publication Date: 1999 Country of Publication: USA xiii+287 pp.  
ISBN: 0 7695 0046 3 Material Identity Number: XX-1999-02058  
U.S. Copyright Clearance Center Code: 0 7695 0046 3/99/\$10.00  
Conference Title: Proceedings of Eleventh International Conference on  
Scientific and Statistical Database Management'99  
Conference Sponsor: Case Western Univ.; ACM SIGMOD; VLDB Endowment  
Conference Date: 28-30 July 1999 Conference Location: Cleveland, OH,  
USA

Language: English Document Type: Conference Paper (PA)  
Treatment: Practical (P)  
Abstract: Multidimensional analysis in online analytical processing (OLAP), and scientific and statistical databases (SSDB) use operations requiring summary information on multidimensional data sets. Most common are aggregate operations along one or more dimensions of numerical data values and/or on hierarchies defined on them. Simultaneous calculation of multidimensional aggregates are provided by the Data Cube operator. This is computed only partially if the number of dimensions is large. Queries may either be answered from a materialized cube or calculated on the fly. The multidimensionality of the underlying problem can be represented both in relational and multidimensional databases, the latter being a better fit when query performance is the criteria for judgement. Relational databases are scalable in size for OLAP and multidimensional analysis and efforts are on to make their performance acceptable. On the other hand multidimensional databases provide good performance for such queries, although they are not very scalable. We address scalability in multidimensional systems for analysis in SSDB and OLAP applications. We describe our system PARSIMONY-Parallel and Scalable Infrastructure for Multidimensional Online analytical processing. Sparsity of data sets is handled by using chunks to store data as a sparse set using a bit encoded sparse structure. Chunks provide a multidimensional index structure for efficient dimension oriented data accesses. Operations within and between chunks are a combination of relational and multidimensional operations depending on whether the chunk is sparse or dense. Performance results for high dimensional data sets on a distributed memory parallel machine (IBM SP-2) show good speedup and scalability. (12 Refs)

Subfile: C  
Descriptors: data mining ; data structures; parallel databases;  
relational databases ; scientific information systems; statistical  
databases; storage management

Identifiers: scalable parallel multidimensional analysis; online  
analytical processing; scientific and statistical databases; summary  
information; multidimensional data sets; aggregate operations; numerical  
data values; multidimensional aggregates; Data Cube operator;  
materialized cube; multidimensionality; multidimensional databases; query  
performance; relational databases ; multidimensional analysis;

scalability; SSDB; OLAP applications; PARSIMONY; Parallel and Scalable Infrastructure for Multidimensional Online analytical processing; data set sparsity; chunks; sparse set; bit encoded sparse structure; multidimensional index structure; dimension oriented data accesses; distributed memory parallel machine; IBM SP-2

Class Codes: C6160B (Distributed databases); C6170K (Knowledge engineering techniques); C7310 (Mathematics computing); C6160Z (Other DBMS); C4250 (Database theory); C6160D (Relational databases); C6120 (File organisation)

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20/5/17 (Item 10 from file: 2)

DIALOG(R)File 2:INSPEC

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6346435 INSPEC Abstract Number: C1999-10-6160Z-005

Title: Extending the E/R model for the multidimensional paradigm

Author(s): Sapia, C.; Blaschka, M.; Hofling, G.; Dinter, B.

Author Affiliation: FORWISS, Munich, Germany

Conference Title: Advances in Database Technologies. ER'98 Workshops on Data Warehousing and Data Mining, Mobile Data Access, and Collaborative Work Support and Spatio-Temporal Data Management. Proceedings p.105-16

Editor(s): Kambayashi, Y.; Lee, D.L.; Lim, E-P.; Mohania, M.K.; Masunga, Y.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1999 Country of Publication: Germany xix+592 pp.

ISBN: 3 540 65690 1 Material Identity Number: XX-1999-01935

Conference Title: Advances in Database Technologies. ER'98 Workshops on Data Warehousing and Data Mining, Mobile Data Access, and Collaborative Work Support and Spatio-Temporal Data Management

Conference Date: 19-20 Nov. 1998 Conference Location: Singapore

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Theoretical (T)

Abstract: Multidimensional data modeling plays a key role in the design of a data warehouse. We argue that the entity relationship model is not suited for multidimensional conceptual modeling because the semantics of the main characteristics of the paradigm cannot be adequately represented. Consequently, we present a specialization of the ER model, called the multidimensional entity relationship (MER) model. In order to express the multidimensional structure of the data we define two specialized relationship sets and a specialized entity set. The resulting MER model allows the adequate conceptual representation of the multidimensional data view inherent to OLAP, namely the separation of qualifying and quantifying data and the complex structure of dimensions. We demonstrate the usability of the MER model by an example taken from an actual project dealing with the analysis of vehicle repairs. (18 Refs)

Subfile: C

Descriptors: automobile industry; data mining; data models; data warehouses; entity-relationship modelling; relational databases; set theory

Identifiers: data warehouse; multidimensional entity relationship model; data structure; relationship sets; entity set; multidimensional ER model; conceptual representation; data view; OLAP; complex structure; data separation; usability; vehicle repairs

Class Codes: C6160Z (Other DBMS); C6170K (Knowledge engineering techniques); C4250 (Database theory); C6120 (File organisation); C1160 (Combinatorial mathematics); C7440 (Civil and mechanical engineering computing); C6160D (Relational databases)

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20/5/18 (Item 11 from file: 2)

DIALOG(R)File 2:INSPEC

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6310515 INSPEC Abstract Number: C1999-09-6120-010

Title: Perfect dimensions [dimensional modeling for relational OLAP]

Author(s): Purdy, G.; Brobst, S.  
Journal: Intelligent Enterprise vol.2, no.8 p.48-50, 52-3  
Publisher: Miller Freeman,  
Publication Date: 1 June 1999 Country of Publication: USA  
CODEN: INENF7  
Material Identity Number: H211-1999-008  
Language: English Document Type: Journal Paper (JP)  
Treatment: Practical (P)

Abstract: Today's advanced business intelligence applications combine the use of large volumes of detailed data with sophisticated analytic capabilities. A common implementation technique is to store data using a relational database and to support applications with a relational online analytical processing (ROLAP) tool providing ad hoc and standardized reporting. All tools focus on business dimensions. We discuss the techniques for dimensional modeling and the tradeoffs you might encounter when arriving upon an appropriate physical representation implemented with a relational database. The right dimensional modeling technique makes all the difference in implementing analytic data structures that best suit your ROLAP tool. (0 Refs)

Subfile: C

Descriptors: business data processing; data mining; data models; relational databases; very large databases  
Identifiers: dimensional modeling; relational OLAP tool; business intelligence applications; relational database; relational online analytical processing; ad hoc reporting; standardized reporting; business dimensions; tradeoffs; physical representation; analytic data structures

Class Codes: C6120 (File organisation); C6160D (Relational databases)  
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20/5/19 (Item 12 from file: 2)  
DIALOG(R)File 2:INSPEC  
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5896677 INSPEC Abstract Number: C9806-6160B-001  
Title: High performance OLAP and data mining on parallel computers  
Author(s): Goil, S.; Choudhary, A.  
Author Affiliation: Dept. of Electr. Eng. & Comput. Sci., Northwestern Univ., Evanston, IL, USA  
Journal: Data Mining and Knowledge Discovery vol.1, no.4 p.391-417  
Publisher: Kluwer Academic Publishers,  
Publication Date: 1997 Country of Publication: Netherlands  
CODEN: DMKDFD ISSN: 1384-5810  
SICI: 1384-5810(1997)1:4L:391:HPOD;1-R  
Material Identity Number: G116-98004  
U.S. Copyright Clearance Center Code: 1384-5810/97/\$9.50  
Language: English Document Type: Journal Paper (JP)  
Treatment: Practical (P)

Abstract: Online analytical processing (OLAP) techniques are increasingly being used in decision support systems to provide analysis of data. Queries posed on such systems are quite complex and require different views of data. Analytical models need to capture the multidimensionality of the underlying data, a task for which multidimensional databases are well suited. Multidimensional OLAP systems store data in multidimensional arrays on which analytical operations are performed. Knowledge discovery and data mining requires complex operations on the underlying data which can be very expensive in terms of computation time. High performance parallel systems can reduce this analysis time. Precomputed aggregate calculations in a data cube can provide efficient query processing for OLAP applications. We present algorithms for construction of data cubes on distributed memory parallel computers. Data is loaded from a relational database into a multidimensional array. We present two methods: sort-based and hash-based for loading the base cube and compare their performances. Data cubes are used to perform consolidation queries used in roll up operations using dimension hierarchies. Finally, we show how data cubes are used for data mining using attribute

focusing techniques. We present results for these on the IBM-SP2 parallel machine. Results show that our algorithms and techniques for OLAP and data mining on parallel systems are scalable to a large number of processors, providing a high performance platform for such applications. (11 Refs)

Subfile: C

Descriptors: data analysis; data structures; distributed databases; distributed memory systems; IBM computers; knowledge acquisition; online operation; parallel machines; query processing; software performance evaluation

Identifiers: high performance OLAP ; data mining ; parallel computers ; online analytical processing; decision support systems; data analysis; query processing; data multidimensionality; multidimensional databases; knowledge discovery; computation time; high performance parallel systems; data cube ; distributed memory computers; relational database ; sort-based method; hash-based method; performance; consolidation queries; roll up operations; attribute focusing; IBM-SP2

Class Codes: C6160B (Distributed databases); C6170K (Knowledge engineering techniques); C4250 (Database theory); C6120 (File organisation); C6130 (Data handling techniques)

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20/5/20 (Item 13 from file: 2)

DIALOG(R) File 2:INSPEC

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5873167 INSPEC Abstract Number: C9805-6160D-008

Title: Data cube : a relational aggregation operator generalizing group-by, cross-tab, and sub-totals

Author(s): Gray, J.; Chaudhuri, S.; Bosworth, A.; Layman, A.; Reichart, D.; Venkatrao, M.; Pellow, F.; Pirahesh, H.

Author Affiliation: Microsoft Res., Adv. Technol. Div., Microsoft Corp., Redmond, WA, USA

Journal: Data Mining and Knowledge Discovery vol.1, no.1 p.29-53

Publisher: Kluwer Academic Publishers,

Publication Date: 1997 Country of Publication: Netherlands

CODEN: DMKDFD ISSN: 1384-5810

SICI: 1384-5810(1997)1:1L.29:DCRA;1-#

Material Identity Number: G116-98001

U.S. Copyright Clearance Center Code: 1384-5810/97/\$9.50

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Data analysis applications typically aggregate data across many dimensions looking for anomalies or unusual patterns. The SQL aggregate functions and the group by operator produce zero-dimensional or one-dimensional aggregates. Applications need the N-dimensional generalization of these operators. This paper defines that operator, called the data cube or simply cube. The cube operator generalizes the histogram, cross-tabulation, roll-up, drill - down , and sub-total constructs found in most report writers. The novelty is that cubes are relations. Consequently, the cube operator can be imbedded in more complex non-procedural data analysis programs. The cube operator treats each of the N aggregation attributes as a dimension of N-space. The aggregate of a particular set of attribute values is a point in this space. The set of points forms an N-dimensional cube. Super-aggregates are computed by aggregating the N-cube to lower dimensional spaces. This paper: explains the cube and roll-up operators; shows how they fit in SQL; explains how users can define new aggregate functions for cubes; and discusses efficient techniques to compute the cube. Many of these features are being added to the SQL standard. (19 Refs)

Subfile: C

Descriptors: data analysis; deductive databases; knowledge acquisition; query processing; relational databases ; SQL; very large databases

Identifiers: data cube ; relational aggregation operator; group-by; cross-tabulation; sub-totals; data analysis; SQL aggregate functions; one-dimensional aggregates; N-dimensional generalization; histogram; roll-up ; drill - down ; report writers; cube operator; data mining ; query

processing; summarization; large database

Class Codes: C6160D (Relational databases); C6140D (High level languages)  
; C6170K (Knowledge engineering techniques); C6160K (Deductive databases)  
Copyright 1998, IEE

20/5/21 (Item 1 from file: 233)

DIALOG(R)File 233:Internet & Personal Comp. Abs.

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00558923 00PK01-320

**Max Plug-in widens ProClarity range**

Shumate, John

PC Week , January 24, 2000 , v17 n4 p82, 1 Page(s)

ISSN: 0740-1604

Company Name: Maximal; Knosys

URL: <http://www.maxsw.com>

Product Name: Max Plug-in 1.0; ProClarity 2.0

Languages: English

Document Type: Software Review

Grade (of Product Reviewed): B

Geographic Location: United States

Presents a favorable review of Max Plug-in 1.0 (\$295), a plug-in from Maximal Corp. of Austin, TX (512). Explains that it extends Knosys Inc.'s ProClarity 2.0 online analytical processing (OLAP) client software with guided data analysis and visualization capabilities. Says that features include client-server and Web-based deployment options, integration with Microsoft Office 2000 productivity suite, and multiple-graph view. Notes, however, that support is limited to Microsoft OLAP Services multidimensional databases. Concludes that the Max/ProClarity combination yields a full-featured OLAP tool set. Includes one screen display and one product summary. (MEM)

Descriptors: Plug-ins; OLAP; Data Analysis; Visualization;

Enterprise Computing; Client-Server Computing

Identifiers: Max Plug-in 1.0; ProClarity 2.0; Maximal; Knosys

20/5/22 (Item 2 from file: 233)

DIALOG(R)File 233:Internet & Personal Comp. Abs.

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00499258 98IE06-413

**Vendors back Microsoft OLAP spec but fear impact**

Luh, James C

Internet World , June 29, 1998 , v4 n23-p25, 29, 2 Page(s)

ISSN: 1081-3071

Company Name: Microsoft

URL: <http://www.microsoft.com> <http://www.microsoft.com>

Product Name: Microsoft Plato; Microsoft SQL Server 7.0

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Discusses the possible impact of the online analytical processor (OLAP) server from Microsoft on the rest of the market. Suggests that although the introduction of the OLAP server is expected to expand the market for OLAP-based products, there is a concern over whether client vendors will be forced out of business by Microsoft's competition. Explains that Microsoft plans to bundle the OLAP server, code-named Plato, with its SQL Server 7.0 (\$NA). Adds that several companies have already announced client products which will be interoperable with Plato. Points out that the Microsoft bundle will move OLAP from the high end into the mid-range market. Also, mentions that Microsoft's own Office 2000 will include OLAP features, although it is not certain whether or not its Excel product will become a true OLAP client replacement. (kgh)

Descriptors: Data Analysis; Server; Client-Server Computing; User Interface; Interoperability; Competition; Productivity Software

Identifiers: Microsoft Plato; Microsoft SQL Server 7.0; Microsoft

20/5/23 (Item 3 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
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00490351 98PK03-111

'Plato' widens OLAP appeal -- Review: but advanced features scant in easy-to-use Microsoft beta

Shumate, John

PC WEEK , March 9, 1998 , v15 n10 p63-67, 2 Page(s)

ISSN: 0740-1604

Company Name: Microsoft

URL: <http://www.microsoft.com>

Product Name: Microsoft OLAP Server

Languages: English

Document Type: Software Review

Grade (of Product Reviewed): C

Hardware/Software Compatibility: IBM PC Compatible; Microsoft Windows

NT

Geographic Location: United States

Presents a mixed review of OLAP Server Beta 2 (\$NA), an online analytical processing program from Microsoft of Redmond, WA (800). Requires an IBM PC compatible with Microsoft Windows NT. Reports that it is code-named Plato, and it delivers the core set of OLAP features with emphasis on usability. States, however, that this release lacks more sophisticated features such as calculated measures, complex aggregations, and multiple drill-down paths, though it is expected these features will be included soon. Says that it is easy to use, it has flexible storage options, and a large selection of third-party clients is expected. Notes that it runs only on NT, there is no native connectivity to databases other than to the Microsoft SQL Server, and there is no stand-alone client. Adds that it is affordable, easy to implement, and will satisfy many organizations' OLAP needs. Includes one screen display. (bjp)

Descriptors: Data Analysis; Server; Database; Windows; Networks; Low-cost

Identifiers: Microsoft OLAP Server; Microsoft

20/5/24 (Item 4 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
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00487011 98IW02-018

Plato instructs OLAP students

Biggs, Maggie

InfoWorld , February 2, 1998 , v20 n5 p95, 1 Page(s)

ISSN: 0199-6649

Company Name: Microsoft

URL: <http://www.microsoft.com>

Product Name: Microsoft OLAP server 1.0

Languages: English

Document Type: Software Review

Grade (of Product Reviewed): B

Hardware/Software Compatibility: IBM PC Compatible; Microsoft Windows

Geographic Location: United States

Presents a favorable review of Microsoft OLAP Server 1.0 code-named Plato, beta (\$NA), an online analytical processing (OLAP) server and development tool from Microsoft. Reports that this differs from Oracle's Express Objects 2.1 in that Plato combines the OLAP server and development tools within a single interface. States that Plato's OLAP tools are designed for developers to use. Mentions that it is due in the near future. Says that it has some rough edges but it definitely shows promise. Adds that the product looks promising for sites that require tools to efficiently analyze data. Includes one screen display and one glossary. (bjp)

Descriptors: Data Analysis; Decision Making; Online Information; Database; Product Development; Application Development; Server

Identifiers: Microsoft OLAP server 1.0; Microsoft

20/5/25 (Item 5 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
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00420769 96PK04-201

**Cognos scores with PowerPlay update**

Taschek, John

PC WEEK , April 15, 1996 , v13 n15 p1, 126, 2 Page(s)

ISSN: 0740-1604

Company Name: Cognos

Product Name: PowerPlay

Languages: English

Document Type: Software Review

Grade (of Product Reviewed): B

Hardware/Software Compatibility: IBM PC Compatible; Unix workstation;  
Microsoft Windows 95; Microsoft Windows NT

Geographic Location: United States

Presents a favorable beta review of PowerPlay v5.0 (\$NA), an online analytical processing program from Cognos Corp. of Burlington, MA (617). Runs on IBM PC compatibles with Windows 95 or NT, or on Unix workstations with HP/UX, Solaris, or IBM AIX. Explains that PowerPlay is a client-side solution that works with relational databases, and it allows users to view corporate data dimensionally such as with cross-tab reports.

Reports that PowerPlay is easy to use, it supports multilevel undo, and it lets users embed OLE objects into PowerPlay views. States that its Transformer utility automatically converts database data into dimensional arrays, and modifying views is a simple drag-and-drop process. Also says PowerPlay's drill-down speed is near-instantaneous, and charting data is easy. However, complains that it takes a long time to convert data structures into a PowerPlay model. (jo)

Descriptors: Modeling; Window Software; Software Review; Data Base Management; Conversions

Identifiers: PowerPlay; Cognos

20/5/26 (Item 6 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
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00388027 95PK06-309

**Financial vendors drilling into OLAP -- Query technique adds to C/S power**

Pickering, Wendy

PC WEEK , June 26, 1995 , v12 n25 p33-37, 2 Page(s)

ISSN: 0740-1604

Company Name: Dun & Bradstreet Software; Oracle; SAP America; SQL Financials; Pilot Software

Languages: English

Document Type: Feature Articles and News

Geographic Location: United States

Focuses on financial-application vendors looking to offer the OLAP (on-line analytical processing) drill-down technique in their client-server applications. Explains that OLAP enables users to view multidimensional data and dig into a data warehouse to extract answers to business questions. Notes that Dun & Bradstreet Software bought Pilot Software Inc. last year, and Oracle Corp. acquired IRI Software several weeks ago in order to obtain OLAP expertise; and that SAP America Inc. and SQL Financials Inc. are also working on OLAP technology. Reports that D&B announced that it will work with Pilot to create a tool to integrate its SmartStream client-server application and Pilot's OLAP-enabled LightShip Server, so that users can process large volumes of data. States OLAP has become popular because most business problems are multidimensional, while relational databases answer only single-dimension queries. (jo)

Descriptors: Financial Analysis; Data Base Management; Client-Server Computing; Business; Database

Identifiers: Dun & Bradstreet Software; Oracle; SAP America; SQL  
Financials; Pilot Software

20/5/27 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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14209818 PASCAL No.: 99-0410340  
Applications and research problems of subgroup mining  
Foundations of intelligent systems : Warsaw, 8-11 June 1999  
KLOESGEN W  
RAS Zbigniew W, ed; SKROWRON Andrzej, ed  
German National Research Center for Information Technology (GMD), 53757  
St. Augustin, Germany  
ISMIS '99 : international symposium on methodologies for intelligent  
systems, 11 (Warsaw POL) 1999-06-08  
Journal: Lecture notes in computer science, 1999, 1609 1-15  
ISBN: 3-540-65965-X ISSN: 0302-9743 Availability: INIST-16343;  
354000084523450010  
No. of Refs.: 11 ref.  
Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)  
Country of Publication: Germany; United States  
Language: English  
Knowledge Discovery in Databases (KDD) is a data analysis process which,  
in contrast to conventional data analysis, automatically generates and  
evaluates very many hypotheses, deals with complex, i.e. large, high  
dimensional , multi relational, dynamic, or heterogeneous data, and  
produces understandable results for those who "own the data". With these  
objectives , subgroup mining searches for hypotheses that can be supported  
or confirmed by the given data and that are represented as a specialization  
of one of three general hypothesis types: deviating subgroups, associations  
between two subgroups, and partially ordered sets of subgroups where the  
partial ordering usually relates to time. This paper gives a short  
introduction into the methods of subgroup mining. Especially the main  
preprocessing, data mining and postprocessing steps are discussed in  
more detail for two applications. We conclude with some problems of the  
current state of the art of subgroup mining.

English Descriptors: Intelligent system; Information system; Relational  
database ; Temporal databases; Information processing; Knowledge  
acquisition

French Descriptors: Systeme intelligent; Systeme information; Base donnee  
relationnelle; Base donnee temporelle; Traitement information;  
Acquisition connaissances

Classification Codes: 001D02B07D

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20/5/28 (Item 2 from file: 144)  
DIALOG(R)File 144:Pascal  
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13561919 PASCAL No.: 98-0263904  
Selective materialization : An efficient method for spatial data cube  
construction  
Research and development in knowledge discovery and data mining :  
Melbourne, April 15-17, 1998  
HAN J; STEFANOVIC N; KOPERSKI K  
WU XINDONG, ed; KOTAGIRI Ramamohanarao, ed; KORB Kevin B, ed  
School of Computing Science, Simon Fraser University, Burnaby, BC, V5A  
1S6, Canada  
PAKDD-98 : Pacific-Asia conference on research adn development in  
knowledge discovery and data mining, 2 (Melbourne AUS) 1998-04-15



Journal: Lecture notes in computer science, 1998, 1394 144-158  
ISBN: 3-540-64383-4 ISSN: 0302-9743 Availability: INIST-16343;  
354000078743580130

No. of Refs.: 13 ref.

Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)

Country of Publication: Germany; United States

Language: English

On-line analytical processing ( OLAP ) has gained its popularity in database industry. With a huge amount of data stored in spatial databases and the introduction of spatial components to many relational or object - relational databases , it is important to study the methods for spatial data warehousing and on-line analytical processing of spatial data. In this paper, we study methods for spatial OLAP , by integration of nonspatial on-line analytical processing ( OLAP ) methods with spatial database implementation techniques. A spatial data warehouse model, which consists of both spatial and nonspatial dimensions and measures, is proposed. Methods for computation of spatial data cubes and analytical processing on such spatial data cubes are studied, with several strategies proposed, including approximation and partial materialization of the spatial objects resulted from spatial OLAP operations. Some techniques for selective materialization of the spatial computation results are worked out, and the performance study has demonstrated the effectiveness of these techniques.

English Descriptors: Geographic information system; Very large databases; Knowledge acquisition; Information processing; Information storage; On line processing

French Descriptors: Systeme information géographique; Base donnee tres grande; Acquisition connaissance; Traitement information; Stockage information; Traitement en ligne

Classification Codes: 001D02B07D

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20/5/29 (Item 1 from file: 34)  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
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08137084 Genuine Article#: 250KM Number of References: 35  
Title: Component-based knowledge engineering architecture  
Author(s): Kim W; Chae KJ; Cho DS; Choi B; Kim M; Lee KH; Lee M; Lee SH; Park SS; Yong HS  
Corporate Source: EWHA WOMANS UNIV, DEPT COMP SCI & ENGN/SEOUL//SOUTH KOREA/ ; CYBER DATABASE SOLUT INC, /AUSTIN//TX/  
Journal: JOURNAL OF OBJECT-ORIENTED PROGRAMMING, 1999, V12, N6 (OCT), P40-& ISSN: 0896-8438 Publication date: 19991000  
Publisher: SIGS PUBLICATIONS INC, 71 WEST 23RD ST, 3RD FLOOR, NEW YORK, NY 10010

Language: English Document Type: ARTICLE

Geographic Location: SOUTH KOREA; USA

Journal Subject Category: COMPUTER SCIENCE, THEORY & METHODS; COMPUTER SCIENCE, SOFTWARE, GRAPHICS, PROGRAMMING

Abstract: The integrated Knowledge Engineering Architecture (IKEA) project underway at Ewha Womans University is a five-year, large-scale advanced research and development (R&D) project aimed at pushing the frontier of knowledge engineering technology. The project provides a single focus for almost all of the faculty members and their graduate students in the Department of Computer Science and Engineering at Ewha Womans University, the women's university with the longest history and tradition of excellence in Korea.

We envision knowledge engineering (KE) as the new dimension being added to information technology (IT) infrastructure, on which the daily business of corporations, government agencies, and educational institutes depends in today's client/server, Internet era. The primary

components of KE technology include relational database systems, data warehousing systems, decision support, and multidimensional data analysis systems, data mining and knowledge discovery systems, Internet XML /HTML document content search mechanisms, and industry-specific applications of data analysis and data mining systems. The objectives of the IKEA project are to address various major open research subjects in each of these areas and to put together a Knowledge Engineering Architecture platform using component-based software development technology. We envision the knowledge engineering architecture to be used in supporting 'knowledge' applications such as database marketing, fraud detection, personalized electronic commerce, customer relationship management, etc.

The IKEA project requires participation from at least six major subdisciplines, including databases, knowledge discovery and reasoning (statistics and artificial Intelligence), visualization and human-computer interlace, parallel processing, networking and distributed systems, and software engineering.

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Set	Items	Description
S1	1903	RDBMS OR RDB OR RELATIONAL() (DATABASE? OR DATA()BASE? OR D- B)
S2	367908	DIMENSION?
S3	1430707	REPORT? OR BLOCK? ? OR OBJECT? OR OLAP? OR ANALYTIC?()REPO- RT?
S4	681	DRILLDOWN OR DRILL?()DOWN? OR DATAMIN? OR DATA()MINING?
S5	226	((MULTI OR 3 OR THREE) () (DIMENSION?) OR 3D OR THREED) () (DB OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?)) OR DATAC- UBE? OR HYPERCUBE? OR (DATA OR HYPER) () CUBE?
S6	1	S1 AND (S2 OR S5) AND S3 AND S4
S7	63	S1 AND (S2 OR S5)
S8	28	S7 AND S3
S9	1	S7 AND S4
S10	348377	DRAG? OR DROP? OR XML OR CLICK? OR CUT(N)PASTE OR GUI OR G- RAPHICAL()USER()INTERFACE?
S11	4	S7 AND S10
S12	29	S6 OR S8 OR S9 OR S11
S13	45	S7 AND IC=(G06F-017? OR G06F-007?)
S14	30	S13 AND MC=(T01-J05A2 OR T01-J05B4?)
S15	44	S12 OR S14
S16	40	S15 AND IC=G06F?
S17	40	IDPAT (sorted in duplicate/non-duplicate order)
S18	40	IDPAT (primary/non-duplicate records only)
File 344:Chinese Patents Abs Aug 1985-2003/Jan		
(c) 2003 European Patent Office		
File 347:JAPIO Oct 1976-2002/Nov(Updated 030306)		
(c) 2003 JPO & JAPIO		
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200321		
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18/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015159884 \*\*Image available\*\*  
WPI Acc No: 2003-220412/200321  
XRPX Acc No: N03-175830

Automatic join graph generation method for relational database queries, involves producing hierarchical representation of instances in table of input list of desired attributes

Patent Assignee: GHUKASYAN H (GHUK-I); HEURISTIC PHYSICS LAB INC (HEUR-N)  
Inventor: GHUKASYAN H

Number of Countries: 021 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020184225	A1	20021205	US 2001871484	A	20010531	200321 B
WO 200299699	A1	20021212	WO 2002US14148	A	20020502	200321

Priority Applications (No Type Date): US 2001871484 A 20010531

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20020184225	A1		17	G06F-007/00	
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WO 200299699	A1 E			G06F-017/30	
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Designated States (National): JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE TR

Abstract (Basic): US 20020184225 A1

NOVELTY - The instances occurring singly and multiply in one-dimensional and multi-dimensional tables in the input list, and containing the attributes of interest for a database query are arranged in a hierarchical representation in a specified manner. The join graph is generated using hierarchical representation.

DETAILED DESCRIPTION - The singly occurring instances and their ancestors of tables in the input list that include attributes of interest for a database query are marked in an hierarchical representation of the database schema. The unmarked instances of multi-dimensional tables that are closest to marked instances and their respective ancestors are marked as parents in the hierarchical representation, with references from one-dimensional tables. The unmarked instances and their ancestors are marked in the next hierarchy level and a join graph is generated using hierarchical representation.

USE - For generating join graphs for management of relational database queries and also for other database applications.

ADVANTAGE - The graph is generated efficiently irrespective of relationship between tables making the system user friendly.

DESCRIPTION OF DRAWING(S) - The figure is a flowchart explaining automatic join graph generation.

pp; 17 DwgNo 1/10

Title Terms: AUTOMATIC; JOIN; GRAPH; GENERATE; METHOD; RELATED; DATABASE; QUERY; PRODUCE; HIERARCHY; REPRESENT; INSTANCE; TABLE; INPUT; LIST; ATTRIBUTE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

18/5/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015159875 \*\*Image available\*\*  
WPI Acc No: 2003-220403/200321

Related WPI Acc No: 2001-432376; 2001-625902; 2002-414155; 2003-039626;  
2003-039629; 2003-058087

XRPX Acc No: N03-175821

Data aggregation module for database management system, has aggregation engine that performs recursive data aggregation operations for slices in

**specified dimensions**

Patent Assignee: BAKALASH R (BAKA-I); CASPI J (CASP-I); SHAKED G (SHAK-I)

Inventor: BAKALASH R; CASPI J; SHAKED G

Number of Countries: 001 Number of Patents: 001

**Patent Family:**

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020184187	A1	20021205	US 2000514611	A	20000228	200321 B
			US 2000634748	A	20000809	
			US 2001796098	A	20010228	
			US 200153352	A	20011107	

Priority Applications (No Type Date): US 2001796098 A 20010228; US 2000514611 A 20000228; US 2000634748 A 20000809; US 200153352 A 20011107

**Patent Details:**

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020184187	A1	71	G06F-007/00	CIP of application US 2000514611
				CIP of application US 2000634748
				Cont of application US 2001796098
				CIP of patent US 6385604
				CIP of patent US 6434544

Abstract (Basic): US 20020184187 A1

NOVELTY - An aggregation engine performs data aggregation operation on multidimensional data that is logically organized along N dimensions , where N is an integer. The aggregation engine performs recursive data aggregation operations for slices in the specified dimensions . A storage handler stores data loaded from a database and aggregated data generated by the aggregation engine, in a multidimensional datastore.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for data aggregation method.

USE - In database management system (DBMS) e.g. relational DBMS ( RDEMS ) used in multidimensional on-line analytical processing (MOLAP) system, ROLAP system, Internet URL directory system, personalized on-line e-commerce shopping system and Internet-based system.

ADVANTAGE - Enables enterprise-wide centralized aggregation. Increases flexibility, scalability and capability of query directed aggregation and speed of data aggregation. Minimizes the data handling operations in multi-hierarchy data structures. Provides flexible, high performance access and analysis of large volumes of complex and interrelated data. Eliminates redundancy over the group of clients.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the MOLAP system.

pp; 71 DwgNo 6A/22

Title Terms: DATA; AGGREGATE; MODULE; DATABASE; MANAGEMENT; SYSTEM; AGGREGATE; ENGINE; PERFORMANCE; RECURSIVE; DATA; AGGREGATE; OPERATE; SLICE; SPECIFIED; DIMENSION

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

18/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015014117 \*\*Image available\*\*

WPI Acc No: 2003-074634/200307

XRPX Acc No: N03-057723

Computerized system in data warehouse system, has OLAP server, for maintaining different data defining dimension and measurement of physical cube and virtual cube, which are mapped for defining virtual cube

Patent Assignee: MICROSOFT CORP (MICT )

Inventor: BERGER A; NETZ A; PASUMANSKY M

Number of Countries: 001 Number of Patents: 001

**Patent Family:**

Patent No	Kind	Date	Applicat No	Kind	Date	Week
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US 6477536 B1 20021105 US 99337828 A 19990622 200307 B

Priority Applications (No Type Date): US 99337828 A 19990622

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6477536 B1 13 G06F-017/30

Abstract (Basic): US 6477536 B1

NOVELTY - An OLAP server (260) has relational database in which data defining physical cube dimension and measurement, and data defining a virtual cube dimension and measurement are stored. A processor maps physical cube dimension and measurement with virtual cube dimension and measurement based on mapping data stored in the relational database, for defining virtual cube.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Computer readable medium storing virtual cube creating program; and

(2) Computerized virtual cube creating method.

USE - Computerized system for creating virtual cube in data warehouse and business analysis system.

ADVANTAGE - The need to issue a multiple queries and to store result of previous queries are eliminated and thus the virtual cube is treated independently and securely.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of computerized system.

OLAP server (260)

pp; 13 DwgNo 3/5

Title Terms: COMPUTER; SYSTEM; DATA; WAREHOUSE; SYSTEM; SERVE; MAINTAIN; DATA; DEFINE; DIMENSION; MEASURE; PHYSICAL; CUBE; VIRTUAL; CUBE; MAP; DEFINE; VIRTUAL; CUBE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014979112 \*\*Image available\*\*

WPI Acc No: 2003-039626/200303

Related WPI Acc No: 2001-432376; 2001-625902; 2002-414155; 2003-039629;

2003-058087; 2003-220403

XRPX Acc No: N03-030988

Database management system e.g. ORDEMS for on-line analytical processing operation, retrieves portions of aggregated data identified based on reference, relevant to query statement by communicating with aggregation module

Patent Assignee: BAKALASH R (BAKA-I); CASPI J (CASP-I); SHAKED G (SHAK-I)

Inventor: BAKALASH R; CASPI J; SHAKED G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020129003	A1	20020912	US 2000514611	A	20000228	200303 B
			US 2000634748	A	20000809	
			US 2001796098	A	20010228	
			US 200135915	A	20011107	

Priority Applications (No Type Date): US 2001796098 A 20010228; US

2000514611 A 20000228; US 2000634748 A 20000809; US 200135915 A 20011107

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020129003 A1 72 G06F-007/00 CIP of application US 2000514611  
CIP of application US 2000634748  
Cont of application US 2001796098  
CIP of patent US 6385604

Abstract (Basic): US 20020129003 A1

NOVELTY - A reference generator provides reference to data stored in tables of a relational data store and to aggregate data stored in non-relational data store by an aggregation module. A query processor communicates with the aggregation module to retrieves portion of aggregated data identified by the generated aggregated data reference, relevant to query statement.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for method for aggregating data stored in the tables of the relational data store and providing query access to the aggregate data.

USE - Database management system (DBMS) e.g. object database management system (ODBMS), object relational database management system (ORDBMS) for on-line analytical processing (OLAP) operation.

ADVANTAGE - Improved response time in handling queries issued to the DBMS, enabling enterprise-wide centralized aggregation. Segmented aggregation provides flexibility, scalability, capability of query directed aggregation (QDA), and speed improvement. QDA minimizes data handling operations in multi-hierarchy data structures, eliminates the need to wait for completion of full aggregation.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the multi-dimensional on-line analytical processing (MOLAP) system.  
pp; 72 DwgNo 6B/22

Title Terms: DATABASE; MANAGEMENT; SYSTEM; LINE; ANALYSE; PROCESS; OPERATE; RETRIEVAL; PORTION; AGGREGATE; DATA; IDENTIFY; BASED; REFERENCE; RELEVANT ; QUERY; STATEMENT; COMMUNICATE; AGGREGATE; MODULE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

18/5/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014846836 \*\*Image available\*\*

WPI Acc No: 2002-667542/200271

XRPX Acc No: N02-528178

Handling method for multiple dimensions in a relational database that is stored in the form of a table

Patent Assignee: EXIE AS (EXIE-N)

Inventor: JENSEN B V; LEHNE O A; STENSLET P

Number of Countries: 100 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200275598	A1	20020926	WO 2001NO496	A	20011214	200271 B
NO 200101395	A	20020920	NO 20011395	A	20010319	200275
NO 314236	B1	20030217	NO 20011395	A	20010319	200318

Priority Applications (No Type Date): US 2001333759 P 20011129; NO 20011395 A 20010319

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200275598	A1	E	54	G06F-017/30	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

NO 200101395	A	G06F-017/30	
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NO 314236	B1	G06F-017/30	Previous Publ. patent NO 200101395
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Abstract (Basic): WO 200275598 A1

NOVELTY - The handling method generates a dimension table (dim-type) of description of dimensions, a dimensional item table (dim-item), a location table (location) representing intersection points between dimensions, and a connection table (dim-conn) defining

connections between each location. The values stored in the database are entered in a separate data value table (data-value).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

- (1) a database system
- (2) a method for performing a computerized query, and
- (3) an associated computer program

USE - For storage and rapid retrieval of information from a database.

ADVANTAGE - Achieves flexibility and reuse of code without sacrificing scalability and performance.

DESCRIPTION OF DRAWING(S) - Diagram of Entity-Relationship  
pp; 54 DwgNo 3/9

Title Terms: HANDLE; METHOD; MULTIPLE; DIMENSION ; RELATED; DATABASE;  
STORAGE; FORM; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-017/60

File Segment: EPI

18/5/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014846385

WPI Acc No: 2002-667091/200271

XRAM Acc No: C02-187401

XRFX Acc No: N02-527790

Computerized storage and retrieval system for storing biological information, includes storage mechanism having accessible protein pathways and annotated information organized in curated clustering arrangement

Patent Assignee: GENMETRICS INC (GENM-N)

Inventor: PIERCY C; TILLINGHAST J; YANG Y

Number of Countries: 100 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200267181	A1	20020829	WO 2002US5089	A	20020220	200271 B

Priority Applications (No Type Date): US 2002347019 P 20020107; US  
2001269711 P 20010220

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200267181	A1	E	50	G06F-019/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU  
ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200267181 A1

NOVELTY - A computerized storage and retrieval system includes data entry mechanism, data displaying mechanism, programmable central processing unit, and data storage mechanism. The storage mechanism has accessible protein pathways and annotated information organized in curated clustering arrangement in a database. The annotated information is accessed through a relational database.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) a method of performing pathway editing comprising programming the central processing unit to identify interactions among the proteins, weighing the interactions, and calculating coefficients of similarity for the interactions;

- (2) a method of annotating modes of protein pathway using genes which encode known proteins comprising using the computer system to select genes which encode known proteins, employing the genes to



produce a protein-protein association matrix containing coefficients of similarity;

(3) an algorithm for dynamic programming comprising initializing a two dimensional array ( $M=M_{ij}$ ), backfilling the array via backward recursion with a given formula, and using a traceback to identify putative pathways PPWj;

(4) a method for protein pathway analysis using a node and mode comparison comprising submitting a query pathway and protein sequences, allowing the computer system to compare nodes using the dynamic programming in which a sequence identity score or p-value summarizes similarly and weight factor is 0-1, compare modes by generating a SCIM matrix to assign coefficient of similarity to corresponding modes, align pathway globally or locally in which insertion or deletion of nodes or modes incurs a penalty, sum all similarly scores, and display high-scoring segments of the aligned pathways;

(5) a method of searching a protein pathways database for homologous protein comprising submitting query pathway and protein sequence, allowing the central processing unit to perform protein sequence analysis, and retrieving homologous proteins; and

(6) a method of predicting related pathways using a query pathway to search a protein pathways database comprising submitting a query pathway and protein sequences, allowing the central processing unit, and retrieving pathway alignments between the query and protein pathways.

USE - For storing biological information e.g., protein, their sequences and attributes, protein interactions, protein-protein associations, protein pathways, mRNA, microarray, and protein expression data, genes, their sequences and attributes, and descriptions of cells, tissues, organs, pathology reports, patient histories, and treatments (claimed).

ADVANTAGE - The inventive system includes a protein pathway database that integrates protein sequence, genomic sequence, gene expression, protein interactions, protein-protein association and pathway data and can be searched using a query pathway to predict homologous or orthologous modes, modes, and pathways.

pp; 50 DwgNo 0/10

Title Terms: COMPUTER; STORAGE; RETRIEVAL; SYSTEM; STORAGE; BIOLOGICAL; INFORMATION; STORAGE; MECHANISM; ACCESS; PROTEIN; PATH; INFORMATION; ORGANISE; ARRANGE

Derwent Class: B04; D16; T01

International Patent Class (Main): G06F-019/00

File Segment: CPI; EPI

18/5/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014754472 \*\*Image available\*\*

WPI Acc No: 2002-575176/200261

Related WPI Acc No: 2002-425967; 2002-435095

XRPX Acc No: N02-456041

Representing backup activity successes and failures in multi-leveled viewing container for visualizing data backup activity of backup devices, provides drill down visual representation of backup activities and failures of backup data

Patent Assignee: BOCADA INC (BOCA-N)

Inventor: BEAR C; SCANLAN L

Number of Countries: 090 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200225498	A1	20020328	WO 2001US29434	A	20010919	200261 B
AU 200192862	A	20020402	AU 200192862	A	20010919	200267

Priority Applications (No Type Date): US 2000665270 A 20000919; US

2000665267 A 20000919; US 2000665269 A 20000919

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200225498 A1 E 42 G06F-017/30

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200192862 A G06F-017/30 Based on patent WO 200225498

Abstract (Basic): WO 200225498 A1

NOVELTY - A record of backup data activity is obtained and errors converted into canonical format. Blocks of data is extracted from relational database containing data originating from a number of backup engines. A drill down visual representation of backup activity successes, failures, and partial failures of data backup is made available. Backup activity billing reports constructed from data originating on a number of backup engines.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method of constructing backup activity billing reports from data originating on one backup engine or a number of backup engines;

(2) a method of graphically representing backup activity, originating from backup engines, across one or more dimensions of time; and

(3) a method of visually representing backup activity successes and failures for data backup products

USE - For visualizing data backup activity from a number of back devices in a network.

ADVANTAGE - Key backup performance metrics are made obvious and having clear indication of the cost of backing up data.

DESCRIPTION OF DRAWING(S) - The flowchart illustrates how the Backup Failure Analysis Report is created.

pp; 42 DwgNo 1/8

Title Terms: REPRESENT; ACTIVE; FAIL; MULTI; LEVEL; VIEW; CONTAINER; DATA;

ACTIVE; DEVICE; DRILL; DOWN; VISUAL; REPRESENT; ACTIVE; FAIL; DATA

Derwent Class: T01; T03

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014669659 \*\*Image available\*\*

WPI Acc No: 2002-490363/200252

XRPX Acc No: N02-387628

Organizing information in database system, with group attributes defined and words of collection of data assigned to attributes by associating data graph identifier list with thesaurus entry

Patent Assignee: LAFAYETTE SOFTWARE INC (LAF-A-N); KOSKAS E Q (KOSK-I); KOSKAS E O (KOSK-I)

Inventor: KOSKAS E O; KOSKAS E Q

Number of Countries: 100 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200244943	A2	20020606	WO 2001IB2792	A	20011129	200252 B
EP 1211610	A1	20020605	EP 2000403329	A	20001129	200252
EP 1211611	A1	20020605	EP 2000403330	A	20001129	200252
EP 1217540	A1	20020626	EP 2000403331	A	20001129	200252
EP 1217541	A1	20020626	EP 2000403332	A	20001129	200252
US 20020093522	A1	20020718	US 2000736683	A	20001213	200254
US 20020095397	A1	20020718	US 2000736677	A	20001213	200254
US 20020095421	A1	20020718	US 2000736711	A	20001213	200254
AU 200232035	A	20020611	AU 200232035	A	20011129	200264

Priority Applications (No Type Date): EP 2000403332 A 20001129; EP

2000403329 A 20001129; EP 2000403330 A 20001129; EP 2000403331 A 20001129

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200244943 A2 E 222 G06F-017/30

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZM  
ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

EP 1211610 A1 E G06F-017/30

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

EP 1211611 A1 E G06F-017/30

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

EP 1217540 A1 E G06F-017/30

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

EP 1217541 A1 E G06F-017/30

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

US 20020093522 A1 G06F-007/00

US 20020095397 A1 G06F-007/00

US 20020095421 A1 G06F-007/00

AU 200232035 A G06F-017/30 Based on patent WO 200244943

Abstract (Basic): WO 200244943 A2

NOVELTY - A word thesaurus associated with an attribute has a  
respective entry containing the word. Data representing data graph  
identifier lists may be respectively associated with the word thesaurus  
entries. The data graph identifier list associated with a thesaurus  
entry relating to a word assigned to an attribute includes any  
identifier allocated to a data graph having the word assigned to the  
attribute.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for:

- (a) a method of processing a query in a database system
- (b) a method of encoding integer lists in a computer system
- (c) a computerized method of combining several of first integer  
lists into a second integer list
- (d) a database system for managing information from a collection of  
data

- (e) a computer system
- (f) a computer program product

USE - In relational database management systems ( RDEMS ), for  
storing and accessing large amounts of data so called data warehouses',  
on-line transaction processing (OLTP) systems, such as for bank teller  
transactions and airline reservations.

ADVANTAGE - Proposes alternative methods of encoding and/or  
combining integer lists, whereby lists of potentially large dimension  
can be efficiently handled.

DESCRIPTION OF DRAWING(S) - The drawing is a flowchart showing a  
data graph creation procedure in accordance with an embodiment of the  
present invention.

pp; 222 DwgNo 19/72

Title Terms: ORGANISE; INFORMATION; DATABASE; SYSTEM; GROUP; ATTRIBUTE;  
DEFINE; WORD; COLLECT; DATA; ASSIGN; ATTRIBUTE; ASSOCIATE; DATA; GRAPH;  
IDENTIFY; LIST; ENTER

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

18/5/9 (Item 9 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014633549 \*\*Image available\*\*

WPI Acc No: 2002-454253/200248  
Related WPI Acc No: 2002-618058; 2002-635864  
XRPX Acc No: N02-358327

Analytical report preparing method for relational database management system of computer, involves displaying reporting object associated with dimension object, using user interface  
Patent Assignee: BIESTRO H (BIESTRO H); CRAS J (CRAS J); POLO-MALOUVIER R (POLO-MALOUVIER R)

Inventor: BIESTRO H; CRAS J; POLO-MALOUVIER R  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020059195	A1	20020516	US 2000194232	A	20000403	200248 B
			US 2001824654	A	20010403	

Priority Applications (No Type Date): US 2000194232 P 20000403; US 2001824654 A 20010403

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020059195	A1		13	G06F-007/00	Provisional application US 2000194232

Abstract (Basic): US 20020059195 A1

NOVELTY - The dimension object is associated with a reporting object, using a user interface. Multiple blocks are synchronized along a common axis, nested sections and breaks. The reporting object which displays values of measures of the corresponding dimension object along with synchronized multiple blocks, is displayed corresponding to dimensions of hypercube.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for computer program product for analytical report preparation.

USE - For computer used in business, industry, engineering environments.

ADVANTAGE - The user interface associates dimension object with the reporting object, hence the reporting block inherits the data definition of the associated dimension object.

DESCRIPTION OF DRAWING(S) - The figure shows an outline view of a graphical user interface utilized to enable analytical reporting.

pp; 13 DwgNo 1/13

Title Terms: ANALYSE; REPORT; PREPARATION; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; COMPUTER; DISPLAY; REPORT; OBJECT; ASSOCIATE; DIMENSION; OBJECT; USER; INTERFACE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

18/5/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014581232 \*\*Image available\*\*

WPI Acc No: 2002-401936/200243

XRPX Acc No: N02-315085

Materialized view maintenance method for relational database, involves modifying fact table after obtaining different types of clocks for fact and dimension tables

Patent Assignee: ORACLE CORP (ORAC-N)

Inventor: GANESH A; WITKOWSKI A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6353828	B1	20020305	US 99311273	A	19990514	200243 B

Priority Applications (No Type Date): US 99311273 A 19990514

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6353828	B1		13	G06F-017/30	

Abstract (Basic): US 6353828 B1

NOVELTY - Two different types of clocks (RX,S) are obtained on fact and dimension tables (T1,T2). The fact table is modified and based on the result of modification, the materialized view of a database is maintained.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer readable medium storing database materialized view maintenance program.

USE - For maintaining materialized view of tables in relational database for data warehousing applications. Used in data warehousing applications.

ADVANTAGE - The transactions to different fact and dimension tables of a materialized view, are serially executed which solves the missing updates problem. Transactions to the same tables of the materialized view are concurrently executed, which improves performance and response time latencies.

DESCRIPTION OF DRAWING(S) - The figure shows a timeline illustrating a sequence of actions performed by two transactions updating the same fact and dimension tables of materialized view.

pp; 13 DwgNo 4/8

Title Terms: VIEW; MAINTAIN; METHOD; RELATED; DATABASE; MODIFIED; FACT; TABLE; AFTER; OBTAIN; TYPE; CLOCK; FACT; DIMENSION ; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/11 (Item 11 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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014575847 \*\*Image available\*\*  
WPI Acc No: 2002-396551/200243  
XRPX Acc No: N02-311004

Variable dimension determination method for RDBMS , involves calculating regression function based on values of subset of most significant variable types defined in measure and variable type values relation record

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: KELLER M

Number of Countries: 027 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1195694	A2	20020410	EP 2001118497	A	20010801	200243 B
US 20020091707	A1	20020711	US 2001971129	A	20011003	200248

Priority Applications (No Type Date): EP 2000121837 A 20001006

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1195694	A2	E	28	G06F-017/30	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

US 20020091707	A1			G06F-007/00	
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Abstract (Basic): EP 1195694 A2

NOVELTY - An input record representing relation between values and measure type and multiple variable type of variable dimensions , is created. A regression function is calculated as a prediction model of measure types, depending on the values of subset of most significant variable types defined in input records. Based on the most significant variable types, database variable dimensions are calculated.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Computer system to perform the variable dimension determination method;
- (2) Data processing program; and
- (3) Computer program product comprising computer usable medium.

USE - For database management system e.g. RDBMS utilized in on-line analytical processing ( OLAP ) of various transactions.

ADVANTAGE - Enables selecting correct variable types, thereby reducing amount of data to be analyzed without any variable dimension selection error.

DESCRIPTION OF DRAWING(S) - The figure shows is a flowchart depicting the determination process of the most significant variable types of the multidimensional database table.

pp; 28 DwgNo 5/7

Title Terms: VARIABLE; DIMENSION ; DETERMINE; METHOD; CALCULATE; REGRESSION; FUNCTION; BASED; VALUE; SUBSET; SIGNIFICANT; VARIABLE; TYPE; DEFINE; MEASURE; VARIABLE; TYPE; VALUE; RELATED; RECORD

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

18/5/12 (Item 12 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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014408920

WPI Acc No: 2002-229623/200229

XRFX Acc No: N02-176597

Temporal interval storage method for databases using an arbitrary index structure to support temporal range queries

Patent Assignee: KRIEGL H (KRIE-I); POETKE M (POET-I); SEIDL T (SEID-I)

Inventor: KRIEGL H; POETKE M; SEIDL T

Number of Countries: 025 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1160682	A1	20011205	EP 2000112031	A	20000602	200229 B

Priority Applications (No Type Date): EP 2000112031 A 20000602

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 1160682	A1	E 35	G06F-017/30	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): EP 1160682 A1

NOVELTY - The Relational interval (RI) tree manages intervals by two relational indexes. For storing  $n$  intervals,  $O(n/b)$  disk pages are necessary, and inserting or deleting an interval requires  $O(\log_{bn})$  I/O operations where  $b$  denotes the disk block size following (MTT 00). For reporting the  $r$  intervals that intersect a given query interval,  $O(h \cdot \log_{bn} + r/b)$  I/Os are required. The height  $h$  of the virtual backbone reflects the current expansion and granularity of the data space and is independent of the number  $n$  of intervals.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

(1) a data structure for storing time interval data.

(2) a method of access a data structure

(3) a computer program for storing and accessing a data structure.

USE - For providing a time interval class to relational and object databases

ADVANTAGE - This storage method combines optimal interval structure with efficient disk-oriented indexing techniques allowing the structure to reside in main memory, avoiding the need for a custom secondary storage unit. Built-in indexes are used on an as-they-are basis without any augmentation of the internal data structure. Thus, no interface below the SQL level is required, and any arbitrary off-the-shelf RDBMS supports the technique. Moreover, intrusive extensions which are typical for previous interval access methods are even not supported by modern ORDBMS. A proper integration with existing RDBMS is an essential aspect for most industrial or commercial applications. By using built-in relational index structures, their strong robustness, performance and integration into transaction management (including recovery mechanisms and concurrently control) is for free. Thus, a lot

of implementation efforts and code maintenance is avoided by a relational storage structure in contrast to typical external memory solutions. The efficiency of the RI-tree is based on the logarithmic I/O complexity of the underlying relational system for one-dimensional range queries on point data. Almost all RDEMS qualify for this quite weak requirement since they typically have implemented the popular B+-tree. By virtualizing the backbone structure of the original main-memory method and storing the intervals in relational indexes, a high efficiency for the RI-tree is achieved. In addition to its efficient support by any off-the-shelf RDEMS, the Relational Interval Tree perfectly fits to the object-relational facilities of modern DBMS including the Oracle8i Server (Ora 99a), the Informix Universal Server (Inf 98) or the IBM DB2 Universal Database (IBM 99). These systems support integrating the RI-Tree with the declarative SQL level as well as with the relational query optimizer.

pp; 35 DwgNo 0/18

Title Terms: TEMPORAL; INTERVAL; STORAGE; METHOD; ARBITRARY; INDEX; STRUCTURE; SUPPORT; TEMPORAL; RANGE; QUERY

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/13 (Item 13 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014385023 \*\*Image available\*\*

WPI Acc No: 2002-205726/200226

XRPX Acc No: N02-156695

Analytical server operation method in computer system, involves determining hierarchical levels of fact and dimension tables, based on logical hierarchy of fact, dimension tables, and metric query  
Patent Assignee: BRIO TECHNOLOGY INC (BRIO-N); ERTL R A (ERTL-I); NOVY R F (NOVY-I); SHAH A (SHAH-I)

Inventor: ERTL R A; NOVY R F; SHAH A

Number of Countries: 095 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200180095	A2	20011025	WO 2001US12501	A	20010417	200226 B
AU 200157077	A	20011030	AU 200157077	A	20010417	200226
US 20020016924	A1	20020207	US 2000199975	A	20000427	200226
			US 2001844717	A	20010427	
US 20020035565	A1	20020321	US 2000199975	A	20000427	200227
			US 2001837114	A	20010417	
			US 2001844680	A	20010427	
US 20020035567	A1	20020321	US 2000199975	A	20000427	200227
			US 2001837114	A	20010417	
			US 2001844488	A	20010427	
US 20020038229	A1	20020328	US 2000199975	A	20000427	200228
			US 2001837114	A	20010417	
			US 2001844483	A	20010427	
US 20020038297	A1	20020328	US 2000199975	A	20000427	200228
			US 2001837114	A	20010417	
			US 2001844706	A	20010427	
US 20020059267	A1	20020516	US 2000197894	A	20000417	200237
			US 2000199975	A	20000427	
			US 2001837114	A	20010417	
US 20020099692	A1	20020725	US 2000199975	A	20000427	200254
			US 2001837114	A	20010417	
			US 2001844700	A	20010427	

Priority Applications (No Type Date): US 2000199975 P 20000427; US 2000197894 P 20000417; US 2001844488 A 20010427; US 2001844483 A 20010427

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200180095 A2 E 47 G06F-017/30

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA

CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS  
 JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL  
 PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
 Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
 IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200157077 A G06F-017/30 Based on patent WO 200180095  
 US 20020016924 A1 G06F-012/14 Provisional application US 2000199975

US 20020035565 A1 G06F-007/00 Provisional application US 2000199975

US 20020035567 A1 G06F-017/30 CIP of application US 2001837114  
 Provisional application US 2000199975

US 20020038229 A1 G06F-017/60 CIP of application US 2001837114  
 Provisional application US 2000199975

US 20020038297 A1 G06F-017/30 CIP of application US 2001837114  
 Provisional application US 2000199975

US 20020059267 A1 G06F-007/00 CIP of application US 2001837114  
 Provisional application US 2000197894

US 20020099692 A1 G06F-007/00 Provisional application US 2000199975  
 Provisional application US 2000199975

CIP of application US 2001837114

Abstract (Basic): WO 200180095 A2

NOVELTY - An analytical server (120) receives information regarding logical hierarchy of fact and dimension tables from a relational database and a metric query from clients (135). Based on received information, hierarchical levels of the fact and dimensional tables in the database are determined, to determine a database query for responding to the metric query. The metric query responds to the server (120) based on the determined database query.

USE - For operating analytical server in computer system.

ADVANTAGE - The analytical server receives and analyzes metadata from the database in order to provide relatively efficient access to the tables of the database in response to a query from an user and facilitating the calculation of chameleon and allocated matrices.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of computer architecture.

Analytical server (120)

Clients (135)

pp; 47 DwgNo 1/9

Title Terms: ANALYSE; SERVE; OPERATE; METHOD; COMPUTER; SYSTEM; DETERMINE; HIERARCHY; LEVEL; FACT; DIMENSION; TABLE; BASED; LOGIC; HIERARCHY; FACT; DIMENSION; TABLE; METRIC; QUERY

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-012/14 ;

G06F-017/30 ; G06F-017/60

File Segment: EPI

18/5/14 (Item 14 from file: 350)  
 DIALOG(R) File 350: Derwent WPIX  
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014334353

WPI Acc No: 2002-155056/200220

XRFX Acc No: N02-117847

Method for performing spreadsheet-like operations in a database system by storing data in non-relational structure that can be addressed as a multi-dimensional array and performing operation specified in database query on data

Patent Assignee: ORACLE CORP (ORAC-N); DORMAN G (DORM-I); OZBUTUN C

(OZBU-I); ROTH M (ROTH-I); WITKOWSKI A (WITK-I); ZEMKE F (ZEMK-I)

Inventor: DORMAN G; OZBUTUN C; ROTH M; WITKOWSKI A; ZEMKE F; OZBUTUN G



Number of Countries: 096 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200206999	A2	20020124	WO 2001US41094	A	20010620	200220 B
AU 200222963	A	20020130	AU 200222963	A	20010620	200236
US 20020059203	A1	20020516	US 2000218851	P	20000713	200237
			US 2001886839	A	20010620	

Priority Applications (No Type Date): US 2000218851 P 20000713; US 2001886839 A 20010620

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200206999 A2 E 60 G06F-017/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200222963 A G06F-017/00 Based on patent WO 200206999

US 20020059203 A1 G06F-017/30 Provisional application US 2000218851

Abstract (Basic): WO 200206999 A2

NOVELTY - The method involves retrieving data from a relational structure and storing the data in a non-relational structure that can be symbolically addressed as a multi-dimensional array. The operation specified in the database query may be performed on the data.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for:

(a) a computer readable medium

USE - For processing of database queries by to performing spreadsheet-like operations in a data system for defining and executing spreadsheet-like operations on data contained within a RDEMS .

ADVANTAGE - Specifies an operation for manipulating data, data from a relational structure that is retrieved and stored in a non-relational structure.

pp; 60 DwgNo 0/5

Title Terms: METHOD; PERFORMANCE; OPERATE; DATABASE; SYSTEM; STORAGE; DATA; NON; RELATED; STRUCTURE; CAN; ADDRESS; MULTI; DIMENSION ; ARRAY; PERFORMANCE; OPERATE; SPECIFIED; DATABASE; QUERY; DATA

Derwent Class: T01

International Patent Class (Main): G06F-017/00 ; G06F-017/30

File Segment: EPI

18/5/15 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014191868 \*\*Image available\*\*

WPI Acc No: 2002-012565/200202

XRPX Acc No: N02-010358

Star join operation method in relational database management system, involves selecting row and column from star map using hash row value and accessing fact table accordingly

Patent Assignee: NCR INT INC (NATC )

Inventor: KOSTAMAA O P; RAMESH B

Number of Countries: 026 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1148430	A2	20011024	EP 2001303147	A	20010402	200202 B

Priority Applications (No Type Date): US 2000556009 A 20000420

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 1148430 A2 E 12 G06F-017/30

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): EP 1148430 A2

NOVELTY - A cross-product is generated from dimension tables referenced by star join, and join column are hashed to create a hash-row value. A portion of hash row value is used to select a star map row and its another portion is used to select column of selected row. A fact table is accessed to join with cross-product when selected column indicates that the record exist in fact table.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Computer implemented system for performing star join;
- (b) Data structure;
- (c) Computer program for performing star join

USE - For performing star join operation in relational database management system ( RDEMS ) of computer system such as mainframe, micro computer or personal computer system.

ADVANTAGE - Since hash-row value is used for addressing star map, the size of map is maintained constant, thus improves the performance of star joins.

DESCRIPTION OF DRAWING(S) - The figure shows a hardware and software environment for performing star join.

pp; 12 DwgNo 1/5

Title Terms: STAR; JOIN; OPERATE; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; SELECT; ROW; COLUMN; STAR; MAP; HASH; ROW; VALUE; ACCESS; FACT; TABLE; ACCORD

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/16 (Item 16 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014185270 \*\*Image available\*\*

WPI Acc No: 2002-005967/200201

XRFX Acc No: N02-005057

Multi- dimensional data processing system for data warehouse system, performs arbitrary arithmetic processing to read data, using unique word in intrinsic memory area and processed data are stored as package data

Patent Assignee: KOKUSAI DENKI KK (KOKZ )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001282590	A	20011012	JP 200092374	A	20000329	200201 B

Priority Applications (No Type Date): JP 200092374 A 20000329

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001282590	A	8	G06F-012/00	

Abstract (Basic): JP 2001282590 A

NOVELTY - Required data are picked out from a relational database (23), and element data required for arithmetic processing of the read-out data are stored in several memory areas. Arbitrary arithmetic processing operations are performed to the read data using a unique word in intrinsic memory area and the processed data are stored as package data each of which is compared with other for data inspection.

USE - For data warehouse system.

ADVANTAGE - Eliminates redundant operation by packaging the portion common to each data warehouse system and enables to perform inspection easily by comparing the output with the expected value.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the components of the multi- dimensional data processing system.

(Drawing includes non-English language text).

Relational database (23)

pp; 8 DwgNo 1/5

Title Terms: MULTI; DIMENSION ; DATA; PROCESS; SYSTEM; DATA; WAREHOUSE;

SYSTEM; PERFORMANCE; ARBITRARY; ARITHMETIC; PROCESS; READ; DATA; UNIQUE;  
WORD; INTRINSIC; MEMORY; AREA; PROCESS; DATA; STORAGE; PACKAGE; DATA  
Derwent Class: T01  
International Patent Class (Main): G06F-012/00  
International Patent Class (Additional): G06F-017/30  
File Segment: EPI

18/5/17 (Item 17 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014133618 \*\*Image available\*\*  
WPI Acc No: 2001-617829/200172  
XRPX Acc No: N01-460757

Combining operation in multi-column table and at least two satellite  
tables in relational database management system, involves generating  
returned values or entries for every double value in both tables  
Patent Assignee: INT BUSINESS MACHINES CORP (IBM )  
Inventor: CHEN S Y C; MALONE P M; MUKAI J; RUGGLES J R; SAMPATRAI D P; WANG  
Y; ZHANG G  
Number of Countries: 002 Number of Patents: 002  
Patent Family:  

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 10028688	A1	20010628	DE 1028688	A	20000609	200172 B
US 6374235	B1	20020416	US 99344731	A	19990625	200232

Priority Applications (No Type Date): US 99344731 A 19990625

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 10028688	A1	19	G06F-017/30	
US 6374235	B1		G06F-017/30	

Abstract (Basic): DE 10028688 A1

NOVELTY - Rows of dimension table are combined to generate  
linked-up rows which are then combined with facts table. Returned entry  
received from fact table is verified to determine whether it meets  
search criteria. If it meets criteria, it is determined whether both  
tables have double values or entries in the combining columns and the  
returned values or entries are generated for every double value in both  
tables.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

(a) Facts and dimension column table combining system;

(b) Program for connecting facts and dimension table

USE - In relational database management system, to access  
information such as weather conditions or events occurring at a  
particular date.

ADVANTAGE - Provides an improved star combination between tables of  
different dimensions with a fact table.

DESCRIPTION OF DRAWING(S) - The figure shows the star shaped  
arrangement of database tables. (Drawing includes non-English language  
text).

pp; 19 DwgNo 1/6

Title Terms: COMBINATION; OPERATE; MULTI; COLUMN; TABLE; TWO; SATELLITE;  
TABLE; RELATED; DATABASE; MANAGEMENT; SYSTEM; GENERATE; RETURN; VALUE;  
ENTER; DOUBLE; VALUE; TABLE

Derwent Class: T01  
International Patent Class (Main): G06F-017/30  
File Segment: EPI

18/5/18 (Item 18 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013905526 \*\*Image available\*\*  
WPI Acc No: 2001-389739/200141  
XRPX Acc No: N01-286711

**Multidimensional data storing method in relational database management system, involves generating replacement value for combination of dimensional key values and storing cell and replacement values in fact table**

Patent Assignee: ORACLE CORP (ORAC-N)

Inventor: ROCCAFORTE R

Number of Countries: 023 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200133427	A2	20010510	WO 2000US28969	A	20001018	200141 B
AU 200110966	A	20010514	AU 200110966	A	20001018	200149
EP 1242915	A2	20020925	EP 2000972283	A	20001018	200271
			WO 2000US28969	A	20001018	
US 6484179	B1	20021119	US 99427202	A	19991025	200280

Priority Applications (No Type Date): US 99427202 A 19991025

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200133427	A2	E	70	G06F-017/30	
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Designated States (National): AU CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AU 200110966	A		G06F-017/30	Based on patent WO 200133427
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EP 1242915	A2	E	G06F-017/30	Based on patent WO 200133427
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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

US 6484179	B1		G06F-017/30	
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Abstract (Basic): WO 200133427 A2

NOVELTY - A request is received to store a cell value associated with dimensional key values. A replacement value is generated based on combination of dimensional key values of specific cell values of fact table. The particular cell value and replacement value is stored within fact table. The replacement and key values are related by a mapping function.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Method for clustering multidimensional values;
- (b) Computer readable medium storing instructions for storing multidimensional data;
- (c) Computer readable medium storing instructions for clustering multidimensional data

USE - For storing multidimensional data in relational database management system used e.g. for sales management of store.

ADVANTAGE - The massive size of the fact table is reduced since the multidimensional data is stored with replacement value instead of the foreign key values that occupy larger memory space. The data in fact table is mapped and stored in random order according to the key values of the data in fact table for efficient recovery of key values.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram explaining multidimensional data storing method.

pp; 70 DwgNo 1/5

Title Terms: MULTIDIMENSIONAL; DATA; STORAGE; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; GENERATE; REPLACE; VALUE; COMBINATION; DIMENSION; KEY; VALUE; STORAGE; CELL; REPLACE; VALUE; FACT; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/19 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013898266 \*\*Image available\*\*

WPI Acc No: 2001-382479/200141

XRPX Acc No: N01-280457

Computer command execution method for relational databank management

determines relational databank source table alterations for formation of new tables to which source data is copied

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: DEKIMPE D M; MALLOY W E; PHAM K P; TOMLYN C R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 10039537	A1	20010308	DE 1039537	A	20000811	200141 B

Priority Applications (No Type Date): US 99386072 A 19990830

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 10039537	A1	29	G06F-017/30	

Abstract (Basic): DE 10039537 A1

NOVELTY - The computer command execution method for a databank operation in a relational databank determines whether the multi-dimensional databank is to be altered and the determines the corresponding required alterations to one or more source tables in a relational databank, with the alterations entered in one or more new tables, to which the source data from the source tables is copied.

DETAILED DESCRIPTION - Also included are INDEPENDENT CLAIMS for the following:

(a) a command execution device for a computer databank operation;  
(b) a computer program storage medium for a databank management program.

USE - The command execution method is used for a databank management system for a computer.

ADVANTAGE - The method provides improved re-structuring of relational database .

DESCRIPTION OF DRAWING(S) - The figure shows a flow diagram of the steps performed by a relational databank management system for execution of a copying method. (Drawing includes non-English language text).

pp; 29 DwgNo 7/10

Title Terms: COMPUTER; COMMAND; EXECUTE; METHOD; RELATED; MANAGEMENT; DETERMINE; RELATED; SOURCE; TABLE; ALTER; FORMATION; NEW; TABLE; SOURCE; DATA; COPY

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/20 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013881833 \*\*Image available\*\*

WPI Acc No: 2001-366045/200138

XRPX Acc No: N01-266957

Relational multidimensional database accessing in computer, involves accessing created relational database using access mechanisms provided by defined multidimensional database and created relational database

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: MALLOY W E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6205447	B1	20010320	US 97885409	A	19970630	200138 B

Priority Applications (No Type Date): US 97885409 A 19970630

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6205447	B1	14	G06F-017/30	

Abstract (Basic): US 6205447 B1

NOVELTY - A multidimensional database is defined using an outline

with one or more dimensions having a list of members, based on which relational schema is defined to create a relational database. The created relational database is accessed using access mechanism provided by defined multidimensional database and created relational database.

**DETAILED DESCRIPTION** - The relational database created based on defined relational schema, includes a fact table and one or more related dimension tables for storing data from multidimensional database. One of dimension tables is an anchor dimension table that does not intersect the fact table with common column, where remaining dimension tables are non-anchor dimension tables each intersecting the fact table with common column. INDEPENDENT CLAIMS are also included for the following:

(a) Apparatus for accessing relational multidimensional database in database management system;

(b) Relational multidimensional database accessing program

**USE** - In relational database management system ( RDEMS ) for accessing relational multidimensional database via main frame computer, mini computer, personal computer or computer configuration such as timesharing mainframe, local area network (LAN), or standalone PC, to support online analytical processing ( OLAP ) system.

**ADVANTAGE** - Emulates multidimensional database using a relational database, enables implementation of relational database for multidimensional data using relational schema, and also facilitates to map data between multidimensional database and relational database. Provides simplified application design, robust calculation capabilities and flexible data access associated with scalability of user access. Enhances performance and automatic table, index and summary management, robust analytical calculation, multiuser read and write access and security. Delivers consistent, fast response measured in seconds regardless of database size. Enables access to data using standard structured query language (SQL).

**DESCRIPTION OF DRAWING(S)** - The figure shows the structure for storing multidimensional database in relational database structure.

pp; 14 DwgNo 4/5

Title Terms: RELATED; MULTIDIMENSIONAL; DATABASE; ACCESS; COMPUTER; ACCESS; RELATED; DATABASE; ACCESS; MECHANISM; DEFINE; MULTIDIMENSIONAL; DATABASE; RELATED; DATABASE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX.

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013851063 \*\*Image available\*\*

WPI Acc No: 2001-335276/200135

XRPX Acc No: N01-242019

Computer data access apparatus for heterogeneous data source for use in Internet, includes middle ware mechanism to access data sources of disparate type in response to input commands from single apparatus

Patent Assignee: BRIO TECHNOLOGY INC (BRIO-N)

Inventor: LACKEY R L; YEDWAB G

Number of Countries: 089 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200075849	A2	20001214	WO 2000US4249	A	20000218	200135 B
AU 200030020	A	20001228	AU 200030020	A	20000218	200135

Priority Applications (No Type Date): US 99328049 A 19990608

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200075849 A2 E 129 G06F-017/60

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW  
AU 200030020 A G06F-017/60 Based on patent WO 200075849

Abstract (Basic): WO 200075849 A2

NOVELTY - The data access apparatus includes a middle ware mechanism to access data source of disparate type in response to input command from a single application mechanism.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Method for accessing data from disparate type data sources;
- (b) Computer program of accessing data from disparate type data sources

USE - For use in Internet to access disparate non-relational data sources such as relational database, non-relational databases, multi-dimensional database, objects and XML files.

ADVANTAGE - Obtains metadata directly from the data sources, not from intermediary repository which must be synchronized with the data source. Permits dynamic construction of driver interface to a newly defined data source and permits the application to see the initial rows of results data as they are made available by the data source.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the data access apparatus.

pp; 129 DwgNo 3/7

Title Terms: COMPUTER; DATA; ACCESS; APPARATUS; HETEROGENEOUS; DATA; SOURCE; MIDDLE; WARE; MECHANISM; ACCESS; DATA; SOURCE; DISPARITY; TYPE; RESPOND; INPUT; COMMAND; SINGLE; APPARATUS

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

18/5/22 (Item 22 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013760678 \*\*Image available\*\*

WPI Acc No: 2001-244890/200125

XRAM Acc No: C01-073512

XRPX Acc No: N01-174360

Biological data searching and display, used in bioinformatics, comprises displaying graphical representation of modules which are selected from listing obtained by searching catalog using probe sequence

Patent Assignee: ERAGEN BIOSCIENCES INC (ERAG-N)

Inventor: BENNER S A; CHAMBERLIN S; KNECHT L

Number of Countries: 095 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200120535	A2	20010322	WO 2000US25247	A	20000914	200125 B
AU 200074881	A	20010417	AU 200074881	A	20000914	200140
EP 1221126	A2	20020710	EP 2000963469	A	20000914	200253
			WO 2000US25247	A	20000914	
JP 2003509776	W	20030311	WO 2000US25247	A	20000914	200319
			JP 2001524043	A	20000914	

Priority Applications (No Type Date): US 99397335 A 19990914; US 99154149 P 19990914

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200120535 A2 E 83 G06F-019/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

relational database containing tables, each table has a domain of at least one attribute in common with at least one other table, the tables store all amino acid sequences available in the database, all catalogs available in the database, all annotations of all families, all families of all catalogs, all regions of all catalogs, all profiles of all families, all annotations of all sequences in the database, all types of sequence annotations in the database, all sequence databases available in the database, and all indexed keys of a sequence;

(6) a computer system for storing and retrieving biological data, comprising relational database for storing biological data comprising interrelated tables, each containing an attribute having a common domain with an attribute of at least one other table in the database, and means for viewing patterns in the evolutionary relationships between genomic sequences on the basis of the data stored in the database;

(7) a computer system for storing and retrieving biological data, comprising a database comprising interrelated tables, and means for viewing patterns in the evolutionary relationships between genomic sequences on the basis of stored data; and

(8) graphically representing on a display device information about long distance homology between modules, each comprising a common subsequence, comprising:

(a) selecting a module of interest; and

(b) displaying a set of all proteins in a database possessing the module, each protein in the set having a graphical view of its modules, where the selected module and other homologous modules at analogous positions are visually distinguished.

USE - For searching and displaying biological data in bioinformatics.

ADVANTAGE - The method allows users to directly use the data returned by one or more queries as the basis for making additional queries. Access to all of the information on a given topic is possible resulting in the discovery of new data connections and relationships. The user is able to more efficiently and effectively review related biological information.

DESCRIPTION OF DRAWING(S) - The drawing shows a navigation flow chart of a method of searching and displaying biological data.

pp; 83 DwgNo 6/20

Title Terms: BIOLOGICAL; DATA; SEARCH; DISPLAY; COMPRISE; DISPLAY; GRAPHICAL; REPRESENT; MODULE; SELECT; LIST; OBTAIN; SEARCH; CATALOGUE; PROBE; SEQUENCE

Derwent Class: B04; D16; T01

International Patent Class (Main): G06F-017/30 ; G06F-019/00

International Patent Class (Additional): C12M-001/00

File Segment: CPI; EPI

18/5/23 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013500025 \*\*Image available\*\*

WPI Acc No: 2000-671966/200065

Related WPI Acc No: 1999-493717

XRPX Acc No: N00-498133

Database operation command executing method in computer, involves storing set of multidimensional data block information into relational database containing fact and related dimension tables

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: MALLOY W E; MOORE S E; ROBINSON G; TOMLYN C R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6122636	A	20000919	US 97885417	A	19970630	200065 B
			US 99311522	A	19990513	

Priority Applications (No Type Date): US 97885417 A 19970630; US 99311522 A 19990513



Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 6122636 A 13 G06F-017/30 Cont of application US 97885417  
Abstract (Basic): US 6122636 A

NOVELTY - The resulting block data are stored, in tabular form, into a relational database which contains a fact table and the related dimension tables. One of the dimension tables serves as the anchor table which does not intersect the fact table with a common column.

DETAILED DESCRIPTION - The method involves forming a multidimensional database having a set of data blocks and identifiers comprising selected multidimensional data for identifying particular data blocks. The set of identifiers provides an ordering of the data blocks using multidimensional member identifiers and holds usage and age information about the blocks. An INDEPENDENT CLAIM is also included for a database operation command executing apparatus.

USE - For computer.

ADVANTAGE - Provides a relational database implementation of a multidimensional database using a relational schema, thus ensuring easy mapping of data between the multidimensional database and the relational database. Provides simplified application design, robust calculation capabilities, and flexible data access coupled with scalability of user access. Delivers consistent, fast response measured in second regardless of database size. Automatically creates and manages tables and indices within a star schema in the relational database, while populating star schema with computed data. Designed to support multi-user and read and write access that enables operational applications e.g. budgeting, planning, forecasting, modeling.

DESCRIPTION OF DRAWING(S) - The figure shows the diagram illustrating the structure for storing multidimensional data in a relational database structure.

pp; 13 DwgNo 4/5

Title Terms: DATABASE; OPERATE; COMMAND; EXECUTE; METHOD; COMPUTER; STORAGE ; SET; MULTIDIMENSIONAL; DATA; BLOCK ; INFORMATION; RELATED; DATABASE; CONTAIN; FACT; RELATED; DIMENSION ; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/24 (Item 24 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013491711 \*\*Image available\*\*

WPI Acc No: 2000-663654/200064

XRPX Acc No: N00-491680

Approximate answers provision method for aggregate queries, involves summarizing sub-cube corresponding to relational database, using histogram techniques and computing error/space benefits

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE )

Inventor: GANTI V; POOSALA V

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6108647	A	20000822	US 9882057	A	19980521	200064 B

Priority Applications (No Type Date): US 9882057 A 19980521

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 6108647 A 12 G06F-017/30

Abstract (Basic): US 6108647 A

NOVELTY - A query containing input data is received. A summary of data cube corresponding to relational database is pre computed and a sub-cube is summarized using histogram techniques. Error/space benefits are computed for each summary corresponding to each technique. An approximate answer is calculated using histogram technique

corresponding to maximum error/space benefit and is output.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) computer system for providing an approximate answer to the query;

(b) program product

USE - For use in decision support applications or online analytical processing applications e.g. business enterprise, large multi-national corporation, etc. Also for use in real time applications such as telecom switches.

ADVANTAGE - Provides quick and approximate answers to aggregate queries by pre computing summary of the data cube using histograms and answering queries using smaller summary. Identifies accurate histogram classes and distributes space among the histograms in various sub-cubes such that the errors are minimized while maximizing computer resources.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart for providing approximate answers to aggregate queries.

pp; 12 DwgNo 1/6

Title Terms: APPROXIMATE; ANSWER; PROVISION; METHOD; AGGREGATE; QUERY; SUB; CUBE; CORRESPOND; RELATED; DATABASE; HISTOGRAM; TECHNIQUE; COMPUTATION; ERROR; SPACE; BENEFICIAL

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/25 (Item 25 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013203203 \*\*Image available\*\*

WPI Acc No: 2000-375076/200032

XRFX Acc No: N00-281654

Real time three dimensional virtual reality creating system in Internet, accesses and transfers stored data in the selected one of the records without diverging data in other records

Patent Assignee: MITSUBISHI ELECTRIC INFORMATION TECHNOLO (MITQ )

Inventor: BARRUS J; MCKEOWN S; STERNS I B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6058397	A	20000502	US 97835497	A	19970408	200032 B

Priority Applications (No Type Date): US 97835497 A 19970408

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6058397	A	41	G06F-017/30	

Abstract (Basic): US 6058397 A

NOVELTY - A relational data base stores data representing the generated virtual 3D environment. A database engine accesses and delivers the stored data in the selected one of the records without delivering data in other records.

DETAILED DESCRIPTION - The system includes a target machine having a specific configuration, coupled to network. The data base engine transmits only that version of generated virtual 3D environment stored in the database, which is compatible with the specific configuration, to the target machine. INDEPENDENT CLAIMS are also included for the following:

(a) information delivery method;

(b) 3D environment updating method;

(c) 3D environment executing system

USE - For creating real time three dimensional virtual reality in network e.g. Internet.

ADVANTAGE - The use of database permits solving problems of persistence, scaling, multi-edit capability, multi-resolution, multi-format and version control, since various portions of database

can be queried, altered and output without regard to other portions.  
Allows access and locking in a fine-grained manner to promote use by multiple users, reliably.

DESCRIPTION OF DRAWING(S) - The figure shows diagrammatic representation of virtual reality screen illustrating various graphical objects, and table illustrating the storage of graphical objects in the locale.

pp; 41 DwgNo 3,4/26

Title Terms: REAL; TIME; THREE; DIMENSION; VIRTUAL; SYSTEM; ACCESS; TRANSFER; STORAGE; DATA; SELECT; ONE; RECORD; DIVERGE; DATA; RECORD

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/26 (Item 26 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013167076 \*\*Image available\*\*

WPI Acc No: 2000-338949/200029

XRPX Acc No: N00-254473

Multi-dimensional object / relational database system for managing various types of business information, has search engine which retrieves data from fact table according to class property designated by user

Patent Assignee: ASPECT DEV (ASPE-N); I2 TECHNOLOGIES INC (ITWO-N); I2 TECHNOLOGIES US INC (ITWO-N)

Inventor: ALTHOFF J

Number of Countries: 090 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200019340	A1	20000406	WO 99US22674	A	19990930	200029 B
AU 200010978	A	20000417	AU 200010978	A	19990930	200035
EP 1125226	A1	20010822	EP 99954690	A	19990930	200149
			WO 99US22674	A	19990930	
KR 2001093775	A	20011029	KR 2001704144	A	20010330	200223
US 6366922	B1	20020402	US 98102463	A	19980930	200226
			US 99409069	A	19990930	
JP 2002526833	W	20020820	WO 99US22674	A	19990930	200258
			JP 2000572777	A	19990930	

Priority Applications (No Type Date): US 98102463 P 19980930; US 99409069 A 19990930

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200019340 A1 E 25 G06F-017/30

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200010978 A G06F-017/30 Based on patent WO 200019340

EP 1125226 A1 E G06F-017/30 Based on patent WO 200019340

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

KR 2001093775 A G06F-017/30

US 6366922 B1 G06F-017/30 Provisional application US 98102463

JP 2002526833 W 26 G06F-017/30 Based on patent WO 200019340

Abstract (Basic): WO 200019340 A1

NOVELTY - A fact table (30) containing granular data (28) is represented along several dimensions to which object-oriented classes are associated. The classes map corresponding to data. A search engine retrieves data from table according to properties of the classes designated by user.

DETAILED DESCRIPTION - The classes include sub-class that inherit properties from parent classes. The search engine retrieves data

corresponding to both unique and inherited property of sub-class, according to user's designation. A first panel of user interface illustrates the hierarchical relationship of classes. The properties of the selected class are displayed by second panel. An INDEPENDENT CLAIM is also included for user interface of multi-dimensional object / relational database system.

USE - For managing various types of business information.

ADVANTAGE - Enables user to create, edit and manipulate both application objects in database and application object relational model using suitable user interface. Due to inheritance properties of classes, users can construct searches based on properties associated with any of the classes and sub-classes within the hierarchy. The search engine includes information about structure of classes and tables hence user is enabled to relate data in terms of classes and instances of classes rather than as rows in tables.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram illustrating process of consolidation of data.

Granular data (28)

Fact table (30)

pp; 25 DwgNo 3/8

Title Terms: MULTI; DIMENSION ; OBJECT ; RELATED; DATABASE; SYSTEM; MANAGE; VARIOUS; TYPE; BUSINESS; INFORMATION; SEARCH; ENGINE; RETRIEVAL; DATA; FACT; TABLE; ACCORD; CLASS; PROPERTIES; DESIGNATED; USER

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-003/14 ; G06F-012/00

File Segment: EPI

18/5/27 (Item 27 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013012335 \*\*Image available\*\*

WPI Acc No: 2000-184186/200017

XRPX Acc No: N00-135903

Computer system to lay out industrial plant, esp. rolling mill - with optimising module, cost analysis module, layout and dimensioning module and maximum database coupled over central data base

Patent Assignee: SIEMENS AG (SIEI )

Inventor: MUELLER H; PEUKER T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19912221	A1	20000224	DE 1012221	A	19990318	200017 B

Priority Applications (No Type Date): DE 1036353 A 19980811

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19912221	A1		6	G05B-017/00	

Abstract (Basic): DE 19912221 A

The software has a modular structure with the modules also available to be used separately and the software is object orientated for technical processes. The unit library is object oriented programmed, the band conditions are object oriented programmed.

The software tools have a modular structure with a central data provision from a relational database . The model Library can be detached from the simulator software so the simulator can be used for other branches of the industry or in other software modules.

USE - For solution of technical queries, off-line simulation of process synthesis analysis of existing appts., testing and optimising of strategies, off-line testing of new modules to provide reliable prediction.

ADVANTAGE - Highly efficient use of software and data management, less engineering costs, allows more problems to be analyzed in

available time.

Dwg.1/3

Title Terms: COMPUTER; SYSTEM; LAY; INDUSTRIAL; PLANT; ROLL; MILL; OPTIMUM;  
MODULE; COST; ANALYSE; MODULE; LAYOUT; DIMENSION ; MODULE; MAXIMUM;  
DATABASE; COUPLE; CENTRAL; DATA; BASE  
Derwent Class: P51; T01; T06; X25  
International Patent Class (Main): G05B-017/00  
International Patent Class (Additional): B21B-037/00; G06F-017/60  
File Segment: EPI; EngPI

18/5/28 (Item 28 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012881299

WPI Acc No: 2000-053133/200004

Related WPI Acc No: 2000-039120; 2000-072331; 2000-086439; 2000-126373

XRAM Acc No: C00-013826

XPX Acc No: N00-041392

Generation of virtual libraries of compounds, useful for identifying  
compounds which bind to target molecules

Patent Assignee: ISIS PHARM INC (ISIS-N)

Inventor: GRIFFEY R; SWAYZE E

Number of Countries: 087 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9959061	A1	19991118	WO 99US10493	A	19990512	200004 B
AU 9939009	A	19991129	AU 9939009	A	19990512	200018
US 6253168	B1	20010626	US 9876405	A	19980512	200138
EP 1127312	A1	20010829	EP 99921921	A	19990512	200150
			WO 99US10493	A	19990512	
US 20010018645	A1	20010830	US 9876405	A	19980512	200151
			US 2001753869	A	20010103	
JP 2002514811	W	20020521	WO 99US10493	A	19990512	200236
			JP 2000548804	A	19990512	

Priority Applications (No Type Date): US 9885092 P 19980512; US 9876405 A  
19980512; US 2001753869 A 20010103

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9959061 A1 E 54 G06F-009/455

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9939009 A G06F-009/455 Based on patent WO 9959061

US 6253168 B1 G06G-007/48

EP 1127312 A1 E G06F-009/455 Based on patent WO 9959061

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

US 20010018645 A1 G06G-007/48 Cont of application US 9876405

Cont of patent US 6253168

JP 2002514811 W 58 G06F-017/30 Based on patent WO 9959061

Abstract (Basic): WO 9959061 A1

NOVELTY - Generating a virtual library of compounds in silico  
comprises selecting a group of related (partial compound) fragments (I)  
with at least 1 attachment site, selecting at least 1 further fragment  
(II) having at least 1 attachment site, and linking (II) to each of the  
fragments of (I) via their respective attachment sites, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

(1) generating a virtual library of compounds in silico comprising:

(a) selecting a (partial compound) fragment (III) with at least 1

attachment site;

- (b) selecting fragments as in (I);
- (c) linking each of the fragments of (I) to the fragment of (III) via their respective attachment sites;

(2) generating a virtual library of compounds in silico comprising:

- (a) selecting fragments as in (I);
- (b) selecting a further group of fragments (IV) with at least 1 attachment site; and
- (c) linking each of the fragments of (I) to each of the fragments of (IV) via their respective attachment sites;

(3) identifying in silico each compound of a virtual library of compounds comprising:

- (a) dissecting the compounds into fragments; and
- (b) identifying each of the fragments in terms of a transformation comprising a one to one link between the fragment and a reagent used to introduce the fragment into a compound; and optionally
- (c) selecting fragments as in (I) or a fragment as in (III);
- (d) selecting at least 1 fragment as in (II) or fragments as in (IV); and
- (e) linking (II) to each of the fragments of (I), (III) to each of the fragments of (IV), and/or at least some of the fragments of (I) to at least some of the fragments of (IV), via their respective attachment sites;

(4) identifying in silico each compound of a virtual library of compounds comprising:

- (a) dissecting the compounds into fragments;
- (b) adding the fragments together in sequential synthesis rounds;

and

- (c) tracking the addition of the fragments;

(5) identifying in silico each compound of a virtual library of compounds comprising steps (3a) and (3b) and:

- (a) adding the transformations together in sequential synthesis rounds; and
- (b) tracking transformations in silico;

(6) storing information about the member compounds of a virtual library of compounds comprising:

- (a) dissecting each of the compounds into fragments;
- (b) linking the fragments of each of the compounds together; and
- (c) tracking the sequence of linkage for each compound;

(7) storing information about member compounds in a virtual library of compounds comprising steps (3a) and (3b) and:

- (a) linking together the transformations of each of the compounds;

and

- (b) tracking the sequence of linkage for each compound;

(8) storing information about the member compounds of a virtual library of compounds comprising:

- (a) dissecting each of the compounds into fragments;
- (b) grouping 2 or more compounds of the library together to form a mixture;
- (c) linking the fragments of each of the compounds together; and
- (d) tracking the sequence of linkage of the members of the mixture;
- (9) storing information about the member compounds of a virtual library of compounds comprising steps (3a) and (3b) followed by (8b-c);

and

USE - The methods may be used to generate compound libraries which can be used to identify compounds which bind to target molecules.

pp; 54 DwgNo 0/18

Title Terms: GENERATE; VIRTUAL; COMPOUND; USEFUL; IDENTIFY; COMPOUND; BIND; TARGET; MOLECULAR

Derwent Class: B04; B05; D16; T01

International Patent Class (Main): G06F-009/455 ; G06F-017/30 ; G06G-007/48

International Patent Class (Additional): C07B-061/00; G06F-017/50 ; G06G-007/58

File Segment: CPI; EPI

DIALOG(R)File 350:Derwent WPIX  
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012813655 \*\*Image available\*\*  
WPI Acc No: 1999-619886/199953  
XRPX Acc No: N99-457175

Command executing method in relational database management system  
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: MALLOY W E; ROBINSON G; TOMLYN C R  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 5978796 A 19991102 US 97885112 A 19970630 199953 B

Priority Applications (No Type Date): US 97885112 A 19970630

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 5978796 A 11 G06F-017/30

Abstract (Basic): US 5978796 A

NOVELTY - Dimensional identifiers that identifies a data block in multi - dimensional database , is received. Rows from the fact table, are accessed through related dimensional tables using received identifiers. The accessed rows are formatted as a data block for multi - dimensional database .

DETAILED DESCRIPTION - In the related dimension tables, one of dimension table is an anchor dimension table that does not intersect with common column and remaining are non-anchor dimension tables that intersect fact table with common columns. An INDEPENDENT CLAIM is also included for command executing apparatus.

USE - In relational database management system which supports on-line analytical processing.

ADVANTAGE - The system does not require extensive support staffs or consultants to develop and deploy applications, since it provides simplified application design, robust calculation capabilities, flexible data access coupled with stability of user accessed provides fast response in seconds regardless of database size.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating step involved to access multi- dimensional data from relation database.

pp; 11 DwgNo 5/5

Title Terms: COMMAND; EXECUTE; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/30 (Item 30 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012687608 \*\*Image available\*\*  
WPI Acc No: 1999-493717/199941  
Related WPI Acc No: 2000-671966  
XRPX Acc No: N99-367802

Computer command executing method in relational database management system to support on-line analytical processing  
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: MALLOY W E; MOORE S E; ROBINSON G; TOMLYN C R  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 5943668 A 19990824 US 97885417 A 19970630 199941 B

Priority Applications (No Type Date): US 97885417 A 19970630

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

Abstract (Basic): US 5943668 A

NOVELTY - The server computer (102) stores multi - dimensional database with multi- dimensional data blocks and identifiers to identify particular data blocks in the relational database (118). A set of rows representing multi- dimensional data block are accessed from the database after receiving multi- dimensional identifier and determining corresponding relational identifier.

USE - In relational database management system using structure query language interface for on-line analytical processing.

ADVANTAGE - A set of identifiers is used to access particular rows of database, hence mapping of data between multi - dimensional database and relational database is possible.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of the relational database management system.

Server computer (102)  
relational database (118)  
pp; 13 DwgNo 1/5

Title Terms: COMPUTER; COMMAND; EXECUTE; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; SUPPORT; LINE; ANALYSE; PROCESS

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/31 (Item 31 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012550310 \*\*Image available\*\*

WPI Acc No: 1999-356416/199930

XRPX Acc No: N99-265250

Command executing method in relational database management system

Patent Assignee: INT BUSINESS MACHINES CORP (IBM )

Inventor: MALLOY W E; TOMLYN C R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5905985	A	19990518	US 97884695	A	19970630	199930 B

Priority Applications (No Type Date): US 97884695 A 19970630

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5905985	A	13	G06F-017/30	

Abstract (Basic): US 5905985 A

NOVELTY - A relational schema containing a fact table (402) and related dimension tables, is defined from a multidimensional database definition. One of the dimension tables is considered as anchor dimension table that does not intersect the fact table with a common column. The remaining tables are considered as non- anchor dimension tables (414,416).

DETAILED DESCRIPTION - The fact table (402) has a dimension column (404,406) for each non-anchor dimension tables of multidimensional database and a value column for each member of the anchor dimension table. The fact table has one or more rows that contain values corresponding to the intersection of members identified by the dimension columns and the members associated with value columns. Each dimension table has a row for each member of dimension and each row in the dimension tables includes a multidimensional member identifier and a relational member identifier. A relational database is created based on the defined relation schema.

USE - For relational database management system to support on line analytical processing ( OLAP ) systems.

ADVANTAGE - Provides simplified application design, robust calculation capabilities and flexible data access coupled with scalability of user access. Delivers consistent, fast response measured



in seconds regardless of database size. Performs high speed data aggregations, matrix calculations, cross dimensional calculations and procedural calculations. Supports multi-user read and write access which enables operational OLAP applications such as budgeting, planning, forecasting, modeling etc.

DESCRIPTION OF DRAWING(S) - The figure illustrates a structure for storing multidimensional data in relational database structure.

Fact table (402)

Dimension column (404,406)

Non-anchor dimension tables (414,416)

pp; 13 DwgNo 4/5

Title Terms: COMMAND; EXECUTE; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/32 (Item 32 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012486724 \*\*Image available\*\*

WPI Acc No: 1999-292832/199925

XRFX Acc No: N99-219414

Displaying method for data of relational database - involves displaying searched data with matrix form using registered attribute which functions as item of matrix display

Patent Assignee: MEIDENSHA CORP (MEID )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11096173	A	19990409	JP 97254629	A	19970919	199925 B

Priority Applications (No Type Date): JP 97254629 A 19970919

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 11096173	A	3	G06F-017/30	

Abstract (Basic): JP 11096173 A

NOVELTY - The data of a relational database are searched and displayed using two-dimensional display procedure. An attribute, which functions as an item of a matrix display, is registered. The searched data are displayed with a matrix form using the registered attribute.

USE - For data of relational database .

ADVANTAGE - Enables operator to easily judge and recognize matrix display. Improves operability since display compression rate is enhanced and scroll frequency is lowered. DESCRIPTION OF DRAWING(S) - The figure shows the example of registration data.

Dwg.1/4

Title Terms: DISPLAY; METHOD; DATA; RELATED; DATABASE; DISPLAY; SEARCH; DATA; MATRIX; FORM; REGISTER; ATTRIBUTE; FUNCTION; ITEM; MATRIX; DISPLAY

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/33 (Item 33 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012332047 \*\*Image available\*\*

WPI Acc No: 1999-138154/199912

XRFX Acc No: N99-101157

Data format conversion method for RDBMS application - involves sorting and rearranging component data according to data definition of several dimensions using high speed sorting apparatus

Patent Assignee: MITSUBISHI ELECTRIC CORP (MITQ )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11007402	A	19990112	JP 97159550	A	19970617	199912 B

Priority Applications (No Type Date): JP 97159550 A 19970617

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 11007402	A	28	G06F-012/00	

Abstract (Basic): JP 11007402 A

NOVELTY - A data definition file (6) corresponding to a multidimensional database (MDDb) (3) is generated. The component data of several dimensions are sorted and rearranged by a high speed sorting apparatus (8) before loading the data from MDDb (2) to the MDDb (3).

USE - For computer system.

ADVANTAGE - The data loading operation is performed efficiently at high speed due to reduction of load time. DESCRIPTION OF DRAWING(S) - The figure shows a system block diagram of the data processor. (2,3) Multidimensional databases; (6) Data definition file; (8) High speed sorting apparatus.

Dwg.1/25

Title Terms: DATA; FORMAT; CONVERT; METHOD; APPLY; SORT; REARRANGE; COMPONENT; DATA; ACCORD; DATA; DEFINE; DIMENSION ; HIGH; SPEED; SORT; APPARATUS

Derwent Class: T01

International Patent Class (Main): G06F-012/00

File Segment: EPI

18/5/34 (Item 34 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012152032 \*\*Image available\*\*

WPI Acc No: 1998-568944/199848

XRPX Acc No: N98-442610

Storing, retrieving and processing method for multi- dimensional customer-oriented data sets - using several cells in memory portion arranged as relational database for storing, retrieving and processing customer-oriented data sets and purchase history of customers

Patent Assignee: HEDGCOCK R (HEDG-I); KEANE T (KEAN-I); NAUGHTON J (NAUG-I); KEANE T J (KEAN-I); NAUGHTON J F (NAUG-I)

Inventor: HEDGCOCK R; KEANE T; NAUGHTON J; KEANE T J; NAUGHTON J F

Number of Countries: 083 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9847092	A1	19981022	WO 98US7212	A	19980410	199848 B
AU 9871085	A	19981111	AU 9871085	A	19980410	199912
EP 1019861	A1	20000719	EP 98918095	A	19980410	200036
			WO 98US7212	A	19980410	
US 6182060	B1	20010130	US 9743597	P	19970415	200108
			US 9857001	A	19980408	
AU 743687	B	20020131	AU 9871085	A	19980410	200222

Priority Applications (No Type Date): US 9857001 A 19980408; US 9743597 P 19970415

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9847092	A1	E 36	G06F-153/00	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9871085 A Based on patent WO 9847092

EP 1019861 A1 E G06F-153/00 Based on patent WO 9847092  
 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
 LI LT LU LV MC MK NL PT RO SE SI  
 US 6182060 B1 G06F-017/30 Provisional application US 9743597  
 AU 743687 B G06F-019/00 Previous Publ. patent AU 9871085  
 Based on patent WO 9847092

Abstract (Basic): WO 9847092 A

The method involves storing in a first memory portion of a computer memory several cells represented as a multi-dimensional storage structure that is defined by several dimensions. Each of the dimensions includes several members for identifying the desired information. Each of the cells corresponds to at least one of the members. Several data lists are stored in a second portion of the computer memory. Each of the data lists comprises several records for storing the desired information.

The method further involves linking each cell with a respective data list such that each respective cell represents a multi-dimensional index to the corresponding data list. Each data list is identified by at least one of the members.

ADVANTAGE - Combines multi-dimensional data analysis and interactive speed of OLAP tool with detailed customer list handling capabilities of customer information system.

Dwg.1/6

Title Terms: STORAGE; RETRIEVAL; PROCESS; METHOD; MULTI; DIMENSION;  
 CUSTOMER; ORIENT; DATA; SET; CELL; MEMORY; PORTION; ARRANGE; RELATED;  
 DATABASE; STORAGE; RETRIEVAL; PROCESS; CUSTOMER; ORIENT; DATA; SET;  
 PURCHASE; HISTORY; CUSTOMER

Derwent Class: T01

International Patent Class (Main): G06F-017/30 ; G06F-019/00 ;  
 G06F-153/00

File Segment: EPI

18/5/35 (Item 35 from file: 350)  
 DIALOG(R) File 350:Derwent WPIX  
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012065110 \*\*Image available\*\*  
 WPI Acc No: 1998-482021/199842  
 XRPX Acc No: N98-375956

Relational data base system - dividing Universal Binary tree  
 representing multi-dimensional data base, into predetermined  
 amount of sub-spaces, and successively processing sub-spaces for reading  
 and providing data content in arbitrary sort order

Patent Assignee: BAYER R (BAYE-I)

Inventor: BAYER R

Number of Countries: 021 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19709041	A1	19980910	DE 1009041	A	19970306	199842 B
WO 9839712	A1	19980911	WO 98EP1330	A	19980306	199842
EP 965090	A1	19991222	EP 98914875	A	19980306	200004
			WO 98EP1330	A	19980306	
EP 965090	B1	20010523	EP 98914875	A	19980306	200130
			WO 98EP1330	A	19980306	
DE 59800764	G	20010628	DE 500764	A	19980306	200138
			EP 98914875	A	19980306	
			WO 98EP1330	A	19980306	
ES 2157660	T3	20010816	EP 98914875	A	19980306	200156
JP 2001513930	W	20010904	JP 98538189	A	19980306	200165
			WO 98EP1330	A	19980306	
US 6381596	B1	20020430	WO 98EP1330	A	19980306	200235
			US 99367701	A	19990820	

Priority Applications (No Type Date): DE 1009041 A 19970306

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 19709041 A1 11 G06F-017/30  
 WO 9839712 A1 G  
 Designated States (National): JP SG US  
 Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
 NL PT SE  
 EP 965090 A1 G G06F-017/30 Based on patent WO 9839712  
 Designated States (Regional): AT CH DE ES FR GB IT LI  
 EP 965090 B1 G G06F-017/30 Based on patent WO 9839712  
 Designated States (Regional): AT CH DE ES FR GB IT LI  
 DE 59800764 G G06F-017/30 Based on patent EP 965090  
 Based on patent WO 9839712  
 ES 2157660 T3 G06F-017/30 Based on patent EP 965090  
 JP 2001513930 W 27 G06F-017/30 Based on patent WO 9839712  
 US 6381596 B1 G06F-017/30 Based on patent WO 9839712

Abstract (Basic): DE 19709041 A

The data base system includes a calculation arrangement, a work memory, and an, especially peripheral memory arrangement, in which at least one multi - dimensional data base is stored as an Universal Binary tree. A division of the UB tree in a predetermined amount of sub-spaces, and a successive processing of the sub-spaces is performed for reading and providing the data content in an arbitrary sort order.

A cache memory is preferably provided for temporary storing the sub-space located in processing cut regions, i.e. jump regions, of the tree up to a complete processing of the jump regions in following sub-spaces.

ADVANTAGE - Enables fast reading, accessing, and joining of data contents in arbitrary sort order with minimum memory requirements.

Dwg.1a/3

Title Terms: RELATED; DATA; BASE; SYSTEM; DIVIDE; UNIVERSAL; BINARY; TREE; REPRESENT; MULTI; DIMENSION ; DATA; BASE; PREDETERMINED; AMOUNT; SUB; SPACE; SUCCESSION; PROCESS; SUB; SPACE; READ; DATA; CONTENT; ARBITRARY; SORT; ORDER

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/36 (Item 36 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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011625271 \*\*Image available\*\*

WPI Acc No: 1998-042399/199804

XRPX Acc No: N98-033883

Relational database system for modelling business of scientific body of work e.g. patent - in which documents are assigned to categories within multi- dimensional hierarchical model which reflects business, scientific or technical interests of entity or speciality

Patent Assignee: EXXON RES & ENG CO (ESSO )

Inventor: COHEN R W; FIATO R A; PAGNUCCO S; UNGER S S

Number of Countries: 068 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9746958	A1	19971211	WO 97US9729	A	19970604	199804 B
US 5721910	A	19980224	US 96655262	A	19960604	199815
AU 9733774	A	19980105	AU 9733774	A	19970604	199821
NO 9805649	A	19990127	WO 97US9729	A	19970604	199914
			NO 985649	A	19981203	
BR 9710844	A	19990817	BR 9710844	A	19970604	199954
			WO 97US9729	A	19970604	
EP 979465	A1	20000216	EP 97929800	A	19970604	200014
			WO 97US9729	A	19970604	
AU 715248	B	20000120	AU 9733774	A	19970604	200015
JP 2000511668	W	20000905	WO 97US9729	A	19970604	200047
			JP 98500849	A	19970604	

Priority Applications (No Type Date): US 96655262 A 19960604

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9746958 A1 E 28 G06F-017/30

Designated States (National): AL AU BA BB BG BR CA CN CU CZ EE GE HU IL  
IS JP KP KR LC LK LR LT LV MG MK MN MX NO NZ PL RO SG SI SK TR TT UA UZ  
VN YU

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT  
KE LS LU MC MW NL OA PT SD SE SZ UG

US 5721910 A 12 G06F-017/30

AU 9733774 A G06F-017/30 Based on patent WO 9746958

NO 9805649 A G06F-000/00

BR 9710844 A G06F-017/30 Based on patent WO 9746958

EP 979465 A1 E G06F-017/30 Based on patent WO 9746958

Designated States (Regional): AT CH DE DK FR GB IT LI

AU 715248 B G06F-017/30 Previous Publ. patent AU 9733774

Based on patent WO 9746958

JP 2000511668 W 30 G06F-017/30 Based on patent WO 9746958

Abstract (Basic): WO 9746958 A

The database system includes stored data of scientific or technical documents e.g. patents or abstracts of the documents, and associated bibliographic and technical classification data, such that the documents are assigned to one or more scientific or technical categories (category assignments) within a multi- dimensional hierarchical model of a business, scientific or technical entity or speciality.

The category assignments are stored in a relational database in which the category assignments are used to identify one or more patterns, trends and/or discontinuities based on a population analysis of the categories.

USE - In determining meaning of scientific or technical documents e.g. patents and/or technical or scientific publications and/or abstracts of documents, and to assign technical documents to categories within multi- dimensional hierarchical model which reflects area of interests of business, scientific or technical entity.

Dwg.1/4

Title Terms: RELATED; DATABASE; SYSTEM; MODEL; BUSINESS; SCIENCE; BODY;  
WORK; PATENT; DOCUMENT; ASSIGN; CATEGORY; MULTI; DIMENSION ; HIERARCHY;  
MODEL; REFLECT; BUSINESS; SCIENCE; TECHNICAL; ENTITY; SPECIAL

Derwent Class: T01

International Patent Class (Main): G06F-000/00 ; G06F-017/30

File Segment: EPI

18/5/37 (Item 37 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011045496 \*\*Image available\*\*

WPI Acc No: 1997-023420/199703

XRPX Acc No: N97-019419

Relational database management method - in which individual search keys are constructed from general expression statements created in DEMS compiler from supplied search queries

Patent Assignee: TANDEM COMPUTERS INC (TAND )

Inventor: BIRDSALL D W; JAIN R; LESLIE H A; YAGHMAI H; JAIN R N

Number of Countries: 008 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 747839	A1	19961211	EP 96108883	A	19960603	199703 B
CA 2178264	A	19961208	CA 2178264	A	19960605	199715
JP 9171478	A	19970630	JP 96182656	A	19960607	199736
US 5778354	A	19980707	US 95481649	A	19950607	199834
JP 11025096	A	19990129	JP 96168445	A	19960607	199915

Priority Applications (No Type Date): US 95481649 A 19950607

Cited Patents: 3.Jnl.Ref

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 747839	A1	E	75	G06F-017/30	
Designated States (Regional): DE FR GB IT SE					
JP 9171478	A		116	G06F-012/00	
JP 11025096	A		16	G06F-017/30	
CA 2178264	A			G06F-017/30	
US 5778354	A			G06F-017/30	

Abstract (Basic): EP 747839 A

The method for searching a database using individual multi- column search keys constructed in accordance with a search query specifying predicate values corresponding to search key column values involves evaluating the predicate values specified by the search query. For each predicate value specified as a range of values, equivalent range values are assigned to the corresponding key column.

For each predicate value specified as an IN list of values, equivalent values are assigned to the corresponding key column, and for each unspecified predicate value, a range of values are assigned to the corresponding key column. The equivalent values assigned are used to construct individual search keys.

USE - Multi- dimensional indexing accessing capability using keyed index searching.

ADVANTAGE - Improved indexed accessing of stored records, and reduced total number of records accessed in given search.

Dwg.1/4

Title Terms: RELATED; DATABASE; MANAGEMENT; METHOD; INDIVIDUAL; SEARCH; KEY ; CONSTRUCTION; GENERAL; EXPRESS; STATEMENT; COMPILE; SUPPLY; SEARCH; QUERY

Derwent Class: T01

International Patent Class (Main): G06F-012/00 ; G06F-017/30

File Segment: EPI

18/5/38 (Item 38 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010928613 \*\*Image available\*\*  
WPI Acc No: 1996-425564/199642  
XRPX Acc No: N96-358226

Data array analysis appts for data stored in quantitative database - develops and maintains set of bi-directional links between selected data items in first database and corresp diagnostics in second database

Patent Assignee: AMADO A (AMAD-I); AMADO C A (AMAD-I)

Inventor: AMADO A; AMADO C A

Number of Countries: 025 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9627837	A1	19960912	WO 95US16156	A	19951208	199642 B
AU 9644688	A	19960923	AU 9644688	A	19951208	199702
US 5701400	A	19971223	US 95400355	A	19950308	199806

Priority Applications (No Type Date): US 95400355 A 19950308

Cited Patents: US 4866634

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9627837	A1	E	64	G06F-017/00	
Designated States (National): AU BR CA CN JP KR MX RU					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
AU 9644688	A			G06F-017/00	Based on patent WO 9627837
US 5701400	A		113	G06F-015/18	

Abstract (Basic): WO 9627837 A

The information compiler is provided as a software tool for applying logic tests and artificial intelligence to data in a first database (9) in order to build a second database (7) containing diagnostics, and maintaining a set of bidirectional links between

selected data items in the first database (9) and corresp diagnostics in the second database (7). The appts develops a map of the raw data dimension into the structured dimension of intelligent interpretation of the information.

The appts allows visual development of multiple applications, and incorporates intelligent query systems (8) for rapid development of decision support systems, and identifies and executes specific actions when particular diagnostics are generated or activated.

USE - Applying if-then-else rules to relational database in artificial intelligence, decision support software and expert system applications, to develop applications in e.g strategic planning, decision-analysis, mfg control etc.

ADVANTAGE - Allows managers to control and exploit information, rather than passively react to it.

Dwg.1/17

Title Terms: DATA; ARRAY; ANALYSE; APPARATUS; DATA; STORAGE; QUANTITATIVE; DATABASE; DEVELOP; MAINTAIN; SET; BI; DIRECTION; LINK; SELECT; DATA; ITEM ; FIRST; DATABASE; CORRESPOND; DIAGNOSE; SECOND; DATABASE

Derwent Class: T01

International Patent Class (Main): G06F-015/18 ; G06F-017/00

File Segment: EPI

18/5/39 (Item 39 from file: 347)

DIALOG(R) File 347:JAPIO

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07015613 \*\*Image available\*\*

INQUIRY PROCESSING METHOD, DATABASE MANAGEMENT SYSTEM TO EXECUTE THE SAME AND RECORDING MEDIUM STORING PROCESSING PROGRAM

PUB. NO.: 2001-243242 [JP 2001243242 A]

PUBLISHED: September 07, 2001 (20010907)

INVENTOR(s): IWATA MORIHIRO  
TSUCHIDA MASASHI

APPLICANT(s): HITACHI LTD

APPL. NO.: 2000-054368 [JP 200054368]

FILED: February 25, 2000 (20000225)

INTL CLASS: G06F-017/30 ; G06F-012/00

#### ABSTRACT

PROBLEM TO BE SOLVED: To make complicated integration such as multi-dimensional integration in a relational database efficient by defining and using an external exclusive integrating means such as an integrating method by a multi - dimensional database as a means such as an index to efficiently perform the integration of the relational database .

SOLUTION: One or more integrating means 111 to perform processings including the integration corresponding to an aggregate function to a data group to be managed by a database management system are registered in the database management system to analyze and execute an inquiry from a user by relating the means to identifiers of the data group and identifiers of the aggregate function, when the inquiry to the database management system is a retrieval inquiry 101 to perform the integration, the integrating means 111 corresponding to the retrieval inquiry is selected and executed by a condition 121 including the identifiers of the data group of a retrieving object and the identifiers of the aggregate function included in the inquiry.

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18/5/40 (Item 40 from file: 347)

DIALOG(R) File 347:JAPIO

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05066905 \*\*Image available\*\*

MANAGEMENT SYSTEM FOR RELATIONAL DATA BASE

PUB. NO.: 08-022405 [JP 8022405 A]  
PUBLISHED: January 23, 1996 (19960123)  
INVENTOR(s): YOSHIDA NOBURU  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 06-155974 [JP 94155974]  
FILED: July 07, 1994 (19940707)  
INTL CLASS: [6] G06F-012/00 ; G06F-017/30  
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units); 45.4  
(INFORMATION PROCESSING -- Computer Applications)  
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &  
Microprocessors)

#### ABSTRACT

PURPOSE: To understand the relational data base as three-dimensional structure and to enable generation management by record by incorporating the concept of records in the relational data base.

CONSTITUTION: To alter route data, an alteration instruction for the route data is inputted on the keyboard 12 of a personal computer 1 together with a valid date on the basis of the alteration specifications of the route data. Consequently, a control part 11 retrieves a reference consistency table 21 to confirm whether or not an object attribute has parent-child relation. As a result of this confirmation, it is judged that the route name of the route data in a relational data base 22b as a parent attribute and the route name of station data in a relational data base 22a as a child attribute are altered. According to this judgement, the control part 11 updates the tuple of the corresponding route data in the relational data base 22b and the tuple of the corresponding station data in the relational data base 22a on the basis of the valid date.

Summary:



Set	Items	Description
S1	3	AU=(BIESTRO H? OR BIESTRO, H?)
S2	3	AU=(CRAS J? OR CRAS, J?)
S3	2	AU=(POLO-MALOUVIER R? OR POLO-MALOUVIER, R?)
S4	2	S1 AND S2 AND S3
S5	3	S1 OR S2 OR S3 OR S4
S6	3	S5 AND IC=G06F?
S7	3	IDPAT (sorted in duplicate/non-duplicate order)
S8	3	IDPAT (primary/non-duplicate records only)

File 344:Chinese Patents Abs Aug 1985-2003/Jan  
(c) 2003 European Patent Office

File 347:JAPIO Oct 1976-2002/Nov(Updated 030306)  
(c) 2003 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2003/Mar W03  
(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030327,UT=20030320  
(c) 2003 WIPO/Univentio

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200321  
(c) 2003 Thomson Derwent

*in Kentor Search*

8/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014815158 \*\*Image available\*\*  
WPI Acc No: 2002-635864/200268  
Related WPI Acc No: 2002-454253; 2002-618058  
XRPX Acc No: N02-502363

Analytical report creating method for relational database system,  
involves deducing set of data using data definition information, and  
querying data source to retrieve data associated with deduced data set  
Patent Assignee: BIESTRO H (BIES-I); CRAS J (CRAS-I); MALOUIER R (MALO-I)  
Inventor: BIESTRO H ; CRAS J ; MALOUIER R  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 20020091681 A1 20020711 US 2000194232 A 20000403 200268 B  
US 2001826426 A 20010403

Priority Applications (No Type Date): US 2000194232 P 20000403; US  
2001826426 A 20010403

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020091681 A1 28 G06F-007/00 Provisional application US 2000194232  
Abstract (Basic): US 20020091681 A1

NOVELTY - A reporting object selected by user from several  
reporting objects is parsed into layout information and data definition  
information. A set of data is deduced using the data definition  
information, based on which several queries are created. A data source  
is queried to retrieve data associated with the deduced set of data.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the  
following:

- (1) Analytical report creating system; and
  - (2) Computer program product for creating analytical report.
- USE - For creating analytical report in relational database system.

ADVANTAGE - Analytical report is effectively generated and built  
from relational database, without unnecessarily retrieving data from  
the database before the report is constructed.

DESCRIPTION OF DRAWING(S) - The figure shows a simplified block  
diagram of analytical report creating system.

pp; 28 DwgNo 2/13

Title Terms: ANALYSE; REPORT; METHOD; RELATED; DATABASE; SYSTEM; DEDUCE;  
SET; DATA; DATA; DEFINE; INFORMATION; DATA; SOURCE; RETRIEVAL; DATA;  
ASSOCIATE; DEDUCE; DATA; SET

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

8/5/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014797352 \*\*Image available\*\*  
WPI Acc No: 2002-618058/200266  
Related WPI Acc No: 2002-454253; 2002-635864  
XRPX Acc No: N02-489232

Relational data model translation method involves transforming normalized  
table obtained on normalization of relational table, into online  
analytical processing model

Patent Assignee: BIESTRO H (BIES-I); CRAS J (CRAS-I); POLO-MALOUIER R  
(POLO-I)

Inventor: BIESTRO H ; CRAS J ; POLO-MALOUIER R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week  
US 20020087516 A1 20020704 US 2000194232 A 20000403 200266 B

Priority Applications (No Type Date): US 2000194232 P 20000403; US  
2001826425 A 20010403

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020087516	A1		31	G06F-007/00	Provisional application US 2000194232

Abstract (Basic): US 20020087516 A1

NOVELTY - A normalized table is created from the relational table and a relationship is defined between the relational table and the normalized table, when the relational table is not normalized. The relational table is referred as the normalized table, when the relational table is normalized. The normalized table is transformed into an on-line analytical processing (OLAP) model.

USE - For translating the relational data model into multidimensional data model.

ADVANTAGE - Enables relational data to be mapped onto an extended multidimensional data model regardless of the database scheme. Enables to access the various instances of a reporting objects as structures in an OLAP dimension, which allows the manipulation of one specific cell in one specific table.

DESCRIPTION OF DRAWING(S) - The figure shows a high level architecture which employs the model translation method.

pp; 31 DwgNo 1/24

Title Terms: RELATED; DATA; MODEL; TRANSLATION; METHOD; TRANSFORM;  
NORMALISE; TABLE; OBTAIN; NORMALISE; RELATED; TABLE; ANALYSE; PROCESS;  
MODEL

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

8/5/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014633549 \*\*Image available\*\*  
WPI Acc No: 2002-454253/200248  
Related WPI Acc No: 2002-618058; 2002-635864  
XRPX Acc No: N02-358327

Analytical report preparing method for relational database management system of computer, involves displaying reporting object associated with dimension object, using user interface

Patent Assignee: BIESTRO H (BIES-I); CRAS J (CRAS-I); POLO-MALOUVIER R (POLO-I)

Inventor: BIESTRO H ; CRAS J ; POLO-MALOUVIER R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020059195	A1	20020516	US 2000194232	A	20000403	200248 B
			US 2001824654	A	20010403	

Priority Applications (No Type Date): US 2000194232 P 20000403; US  
2001824654 A 20010403

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020059195	A1		13	G06F-007/00	Provisional application US 2000194232

Abstract (Basic): US 20020059195 A1

NOVELTY - The dimension object is associated with a reporting object, using a user interface. Multiple blocks are synchronized along a common axis, nested sections and breaks. The reporting object which displays values of measures of the corresponding dimension object along with synchronized multiple blocks, is displayed corresponding to dimensions of hypercube.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for computer program product for analytical report preparation.

USE - For computer used in business, industry, engineering environments.

ADVANTAGE - The user interface associates dimension object with the reporting object, hence the reporting block inherits the data definition of the associated dimension object.

DESCRIPTION OF DRAWING(S) - The figure shows an outline view of a graphical user interface utilized to enable analytical reporting.

pp; 13 DwgNo 1/13

Title Terms: ANALYSE; REPORT; PREPARATION; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; COMPUTER; DISPLAY; REPORT; OBJECT; ASSOCIATE; DIMENSION; OBJECT; USER; INTERFACE

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

Set	Items	Description
S1	4829	RDBMS OR RDB OR RELATIONAL() (DATABASE? OR DATA()BASE? OR D-B)
S2	399794	DIMENSION?
S3	1704886	REPORT? OR BLOCK? ? OR OBJECT? OR OLAP? OR ANALYTIC?()REPO-RT?
S4	2039	DRILLDOWN OR DRILL?()DOWN? OR DATAMIN? OR DATA()MINING?
S5	1057	((MULTI OR 3 OR THREE)() (DIMENSION?) OR 3D OR THREED)() (DB OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?)) OR DATA-CUBE? OR HYPERCUBE? OR (DATA OR HYPER)()CUBE?
S6	262	S1 AND (S2 OR S5) AND S3 AND S4
S7	1499	S1 AND (S2 OR S5)
S8	1491	S7 AND S3
S9	262	S7 AND S4
S10	302064	DRAG? OR DROP? OR XML OR CLICK? OR CUT(N)PASTE OR GUI OR G-RAPPHICAL()USER()INTERFACE?
S11	1739421	REPORT? OR REPLY OR REPLIES OR RESULT? OR ANSWER?
S12	95	S1(S) (S2 OR S5) (S)S3
S13	16	S12(S)S10
S14	49	S12(S)S11
S15	8	S4(S) (S13 OR S14)
S16	28	(S13 OR S14) AND IC=(G06F-017? OR G06F-007?)
S17	34	S15 OR S16
S18	34	IDPAT (sorted in duplicate/non-duplicate order)
S19	34	IDPAT (primary/non-duplicate records only)
S20	21	S19 NOT AD>20010403

File 348:EUROPEAN PATENTS 1978-2003/Mar W03

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030327,UT=20030320

(c) 2003 WIPO/Univentio

20/5/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01360830

**Relation interval tree**

**Baum zum Indizieren von Zeitabstanden fur relationale Datenbanken**

**Arbre d'indexation d'intervalles dans des bases de donnees relationnelles**

**PATENT ASSIGNEE:**

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**PATENT (CC, No, Kind, Date):** EP 1160682 A1 011205 (Basic)

**APPLICATION (CC, No, Date):** EP 2000112031 000602;

**DESIGNATED STATES:** AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

**EXTENDED DESIGNATED STATES:** AL; LT; LV; MK; RO; SI

**INTERNATIONAL PATENT CLASS:** G06F-017/30

**ABSTRACT EP 1160682 A1**

Modern database applications show a growing demand for efficient and dynamic management of intervals, particularly for temporal or spatial data as well as for constraint handling. Common approaches require the augmentation of index structures which, however, is not supported by existing relational database systems. By design, the new Relational Interval Tree (RI-tree) employs built-in indexes on an as-they-are basis and is very easy to implement. Whereas the functionality and efficiency of the RI-tree is supported by any off-the-shelf relational DBMS, it may be perfectly encapsulated by the object-relational data model.

The RI-tree requires  $O(n/b)$  disk blocks of size  $b$  to store  $n$  intervals,  $O(\log b)n$  I/O operations for insertion or deletion, and  $O(h(\text{center dot}) \log b)n + r/b$  I/Os for an intersection query producing  $r$  results. The height  $h$  of the virtual backbone tree corresponds to the current expansion and granularity of the data space but does not depend on  $n$ . As demonstrated by our experimental evaluation on an Oracle8i server, competing dynamic interval access methods are outperformed by factors of up to 42 for disk accesses and 4.9 for query response time.

**ABSTRACT WORD COUNT:** 184

**NOTE:**

Figure number on first page: NONE

**LEGAL STATUS (Type, Pub Date, Kind, Text):**

Application: 011205 A1 Published application with search report

Withdrawal: 030312 A1 Date application deemed withdrawn: 20020606

**LANGUAGE (Publication,Procedural,Application):** English; English; English

**FULLTEXT AVAILABILITY:**

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200149	329
SPEC A	(English)	200149	8920
Total word count - document A			9249
Total word count - document B			0
Total word count - documents A + B			9249

20/5/2 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01344122

Optimization of a star join operation using a bitmap index structure  
Optimisierung einer Stern-Verbindungs-Operation unter Benutzung einer  
Bitmap-Index-Struktur

Optimisation d'une operation de raccordement en etoile en utilisant une  
structure d'indexes en mode point

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1148430 A2 011024 (Basic)  
EP 1148430 A3 030129

APPLICATION (CC, No, Date): EP 2001303147 010402;

PRIORITY (CC, No, Date): US 556009 000420

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/30

ABSTRACT EP 1148430 A2

The invention relates to the optimization of a star join operation in relational database management systems (RDBMS). A cross-product is generated from a plurality of dimension tables referenced by the star join. The join columns of the cross-product are then hashed to create a hash-row value. Using the hash-row value, a Star Map is probed to determine whether a record exists in a fact table that corresponds to the cross-product, wherein a first portion of the hash-row value is used to select a row of the Star Map and a second portion of the hash-row value is used to select a column of the selected row of the Star Map. The fact table is accessed to perform a merge join with the cross-product when the selected column of the selected row of the Star Map indicates that the record exists in the fact table.

ABSTRACT WORD COUNT: 145

NOTE:

Figure number on first page: NONE

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 011024 A2 Published application without search report

Search Report: 030129 A3 Separate publication of the search report

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200143	1140
SPEC A	(English)	200143	4752
Total word count - document A			5892
Total word count - document B			0
Total word count - documents A + B			5892

20/5/3 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01101486

System and techniques for fast approximate query answering

System und Technik fur schnelles genahertes Abfrageruckantworten

Systeme et technique de reponse approximative rapide a des requetes

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 965928 A2 991222 (Basic)

APPLICATION (CC, No, Date): EP 99303624 990510;

PRIORITY (CC, No, Date): US 81660 980520

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/30

#### ABSTRACT EP 965928 A2

An approximate query answering system that provides fast, highly-accurate approximate answers to database queries. The system provides these approximate answers using small, pre-computed synopsis data structures (samples, counts, etc.) from the underlying database and accuracy guarantees without any a priori assumptions on either the data distribution, the order in which the base data is loaded, or the layout of the data on the disks. The system also provides fast approximate answers for queries with selects, aggregates, group bys and/or joins (especially, the multi-way foreign key joins that are popular in OnLine Analytical Processing (OLAP)). The system uses several new techniques for improving the accuracy of approximate query answers for this class of queries, including, (1) join sampling to significantly improve the approximation quality and (2) biased sampling to overcome the problem of group size disparities in group by operations. Moreover, the system uses efficient algorithms for incremental maintenance of join samples, biased samples, and all other synopses used in the current system. The system remains effective even in the presence of data distribution changes.

ABSTRACT WORD COUNT: 175

#### NOTE:

Figure number on first page: 2

#### LEGAL STATUS (Type, Pub Date, Kind, Text):

Withdrawal: 001102 A2 Date of withdrawal of application: 20000831

Application: 991222 A2 Published application without search report

LANGUAGE (Publication, Procedural, Application): English; English; English

#### FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS A	(English)	199951	1314
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SPEC A	(English)	199951	11300
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Total word count - document A	12614
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Total word count - document B	0
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Total word count - documents A + B	12614
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20/5/4 (Item 4 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00960281

#### Accessing database information

Verfahren zum Zugriff auf Datenbankinformation

Methoda d'accès aux informations d'une base de données

#### PATENT ASSIGNEE:

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#### INVENTOR:

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#### LEGAL REPRESENTATIVE:

Burt, Roger James, Dr. et al (52154), IBM United Kingdom Limited



Intellectual Property Law Hursley Park, Winchester Hampshire SO21 2JN,  
(GB)

PATENT (CC, No, Kind, Date): EP 871134 A2 981014 (Basic)  
EP 871134 A3 010110

APPLICATION (CC, No, Date): EP 98302837 980414;

PRIORITY (CC, No, Date): US 835967 970411

DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IE; IT; LI; NL; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/30 ; G06F-009/46

ABSTRACT EP 871134 A2

Routines for manipulating data in a database are performed by a database server by determining whether or not a database manipulation routine is to be isolated from a specified range of memory, and, in response, selectively switching memory access permission to the specified range of memory (e.g., from read/write to read-only) for the database manipulation routine under consideration. The database manipulation routine is then executed using the selectively switched memory access permission. A database manipulation routine that is to be isolated can be executed with read-only memory access thereby protecting the specified range of memory (e.g., corresponding to core data structures) from improper modification.

ABSTRACT WORD COUNT: 105

NOTE:

Figure number on first page: 5

LEGAL STATUS (Type, Pub Date, Kind, Text):

Search Report: 010110 A3 Separate publication of the search report

Application: 981014 A2 Published application (A1with Search Report  
;A2without Search Report)

Change: 020327 A2 Legal representative(s) changed 20020206

Assignee: 020327 A2 Transfer of rights to new applicant:  
International Business Machines Corporation  
(200128) New Orchard Road Armonk, NY 10504 US

Examination: 020130 A2 Date of dispatch of the first examination  
report: 20011214

Deleted: 020130 A2 Legal representative(s) deleted 20011212

Examination: 981014 A2 Date of filing of request for examination:  
980422

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9842	989
SPEC A	(English)	9842	5839
Total word count - document A			6828
Total word count - document B			0
Total word count - documents A + B			6828

20/5/5 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00834636

MULTI-DIMENSIONAL DATABASE AND INTEGRATED AGGREGATION SERVER

BASE DE DONNEES MULTIDIMENSIONNELLE ET SERVEUR D'AGREGATION INTEGRE

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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(Nationality), (Designated only for: US)

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Legal Representative:

PERKOWSKI Thomas J (et al) (agent), Thomas J. Perkowski, Esq. P.C.,

Soundview Plaza, 1266 East Main Street, Stamford, CT 06902, US,  
Patent and Priority Information (Country, Number, Date):

Patent: WO 200167303 A1 20010913 (WO 0167303)

Application: WO 2001US6316 20010228 (PCT/WO US0106316)

Priority Application: US 2000514611 20000228; US 2000634748 20000809

Parent Application/Grant:

Related by Continuation to: US 2000514611 20000228 (CIP); US 2000634748 20000809 (CIP)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 21271

#### English Abstract

Improved method of and apparatus for aggregating data elements in multidimensional databases (MDDB). In one aspect of the present invention, the apparatus is realized in the form of a high-performance stand-alone (i.e. external) aggregation server which can be plugged-into conventional OLAP systems to achieve significant improvements in system performance. In accordance with the principles of the present invention, the stand-alone aggregation server contains a scalable MDDB and a high-performance aggregation engine that are integrated into the modular architecture of the aggregation server. The stand-alone aggregation server of the present invention can uniformly distribute data elements among a plurality of processors, for balanced loading and processing, and therefore is highly scalable. The stand-alone aggregation server of the present invention can be used to realize (i) an improved MDDB for supporting on-line analytical processing (OLAP) operations, (ii) an improved Internet URL Directory for supporting on-line information searching operations by Web-enabled client machines, as well as (iii) diverse types of MDDB-based systems for supporting real-time control of processes in response to complex states of information reflected in the MDDB. In another aspect of the present invention, the apparatus is integrated within a database management system (DBMS). The improved DBMS can be used to realize achieving a significant increase in system performance (e.g. decreased access/search time), user flexibility and ease of use. The improved DBMS system of the present invention can be used to realize an improved Data Warehouse for supporting on-line analytical processing (OLAP) operations or to realize an improved informational database system, operational database system, or the like.

#### French Abstract

Procédé et appareil améliorés destinés à l'agregation des éléments de données dans des bases de données multidimensionnelles (MDDB). Dans l'un des aspects de l'invention, l'appareil se présente comme un serveur d'agregation isolé (c'est-à-dire externe) à performances élevées qui peut être connecté à des systèmes conventionnels de traitement analytique en ligne (OLAP) pour améliorer sensiblement les performances du système. Selon les principes de cette invention, le serveur d'agregation isolé contient une MDDB échelonnable et un moteur d'agregation haute performance qui sont intégrés dans une architecture modulaire du serveur d'agregation. Le serveur d'agregation isolé de la présente invention peut répartir uniformément les éléments de données parmi plusieurs processeurs afin de mettre en oeuvre un chargement équilibré des éléments de données; il est de ce fait hautement échelonnable. Le serveur d'agregation isolé de la présente invention peut s'utiliser (i) pour mettre en oeuvre une MDDB isolée destinée au support des opérations OLAP, (ii) comme un

repertoire ameliore d'URL sur Internet, destine au support des informations de recherche en ligne par l'Internet grace aux machines clientes a capacite d'accès au Web et (iii) comme divers types de systemes fondees sur la MDDb, destine a la prise en charge du controle en temps reel des processus en reponse aux etats complexes des informations refletees dans la MDDb. Dans un autre aspect de l'invention, l'appareil est integre a l'interieur d'un systeme de gestion de bases de donnees (DBMS). Le DBMS ameliore peut etre utilise pour obtenir une augmentation sensible des performances du systeme (p.ex., reduction du temps d'accès/de recherche) et de plus grandes facilite d'utilisation et flexibilite pour les utilisateurs. Le systeme DBMS ameliore de la presente invention peut etre utilise pour mettre en oeuvre un depot de donnees ameliore destine a prendre en charge les operations de traitement analytique en ligne (OLAP) ou pour creer un systeme de base de donnees ameliore, un systeme de base de donnees operationnel ou similaire.

Legal Status (Type, Date, Text)

Publication 20010913 A1 With international search report.

Examination 20011220 Request for preliminary examination prior to end of 19th month from priority date

20/5/6 (Item 2 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00816795 \*\*Image available\*\*

ONLINE MODIFICATIONS OF DIMENSION STRUCTURES IN MULTIDIMENSIONAL PROCESSING  
MODIFICATIONS EN LIGNE DE STRUCTURES DIMENSIONNELLES DANS UN TRAITEMENT  
MULTIDIMENSIONNEL

Patent Applicant/Assignee:

DECODE GENETICS EHF, Sturlugotu 8, IS-101 Reykjavik, IS, IS (Residence),  
IS (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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GUDBJARTSSON Hakon, Styrimannastigur 2, IS-101 Reykjavik, IS, IS  
(Residence), IS (Nationality), (Designated only for: US)

Legal Representative:

WAKIMURA Mary Lou (et al) (agent), Hamilton, Brook, Smith & Reynolds,  
P.C., 530 Virginia Road, P.O. Box 9133, Concord, MA 01742-9133, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200150326 A2-A3 20010712 (WO 0150326)

Application: WO 2000US42810 20001213 (PCT/WO US0042810)

Priority Application: US 99475695 19991230

Parent Application/Grant:

Related by Continuation to: US 99475695 19991230 (CON)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 11224

English Abstract

A method/operator is disclosed that modifies dimension structures and relations during processing in a multidimensional data cube. The online "blowup" operator disclosed uses one or more hierarchical structures to expand a hypercube in order to reveal internal connections between

attributes in relations associated with the hypercube. The operator is generic and may be applied to any dimension using hierarchical structures to guide the process. Furthermore, it is applicable to any data warehouse design. The methods enable a user, performing multidimensional analysis, to view, online, internal connections between attributes when going from one level to another in the hierarchical structures. Such as when comparing complex health related statistics for individuals across different age periods or for individuals versus their ancestors. The methods disclosed, facilitate OLAP for more complex data than current designs do.

#### French Abstract

L'invention concerne un procede et un operateur modifiant les structures et les relations dimensionnelles pendant le traitement dans un hypercube multidimensionnel. L'operateur <=d'agrandissement> en ligne selon l'invention utilise une ou plusieurs structures hierarchiques afin d'agrandir un hypercube en vue de faire apparaitre des connexions internes entre des attributs dans des relations associes avec l'hypercube. L'operateur est generique et peut etre applique a n'importe quelle dimension au moyen de structures hierarchiques afin de guider le processus. De plus, cet operateur est applicable a n'importe quelle conception d'entrepot de donnees. Les procedes permettent a l'utilisateur, effectuant une analyse multidimensionnelle, de visualiser, en ligne, des connexions internes entre des attributs lors du passage d'un niveau a un autre dans les structures hierarchiques, notamment lors de la comparaison de statistiques complexes concernant la sante d'individus repartis dans differentes tranches d'age ou d'individus par rapport a leurs ancetres. Les procedes selon l'invention facilitent, par rapport aux conceptions actuelles, un traitement analytique en ligne (OLAP) pour des donnees complexes.

#### Legal Status (Type, Date, Text)

Publication 20010712 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20011004 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20020606 Late publication of international search report  
Republication 20020606 A3 With international search report.

20/5/7 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00816731 \*\*Image available\*\*

#### ONLINE MODIFICATIONS OF RELATIONS IN MULTIDIMENSIONAL PROCESSING

#### MODIFICATIONS EN LIGNE DES RELATIONS DANS UN TRAITEMENT MULTIDIMENSIONNEL

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#### Patent and Priority Information (Country, Number, Date):

Patent: WO 200150246 A2-A3 20010712 (WO 0150246)

Application: WO 2000US34240 20001213 (PCT/WO US0034240)

Priority Application: US 99475786 19991230

#### Parent Application/Grant:

Related by Continuation to: US 99475786 19991230 (CON)

#### Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 11257

#### English Abstract

A method/operator is disclosed that adjusts measurements during processing in a multidimensional data cube. The online "depth-of-field" operator disclosed varies the density of points in a representation of the multidimensional cube. The operator may be applied to any collection of dimensions and relations supported by the dimensions, using hierarchical structures to control the adjustments. It allows one to experiment online with the definition of relations during multidimensional processing, thereby controlling the output of the synthesizing process. The operator may be used to equate attributes based on their hierarchical positions when processing measurements in a hypercube. Furthermore, it may be used to reveal hidden dependencies between variables when working with measurements with varying levels of granularity. As is the case when processing health related data for individuals or when processing heterogeneous relations from different sources such as a combination of measurements about individuals, their ancestors and the environment. The methods disclosed are generic and applicable to any data warehouse design and enable OLAP for a wider variety of data and structures than current implementation schemas.

#### French Abstract

L'invention concerne un procede/operateur permettant d'ajuster des mesures au cours du traitement dans un cube de donnees multidimensionnel. L'operateur <= profondeur de champ >= en ligne de l'invention fait varier la densite des points dans une representation du cube multidimensionnel. Cet operateur peut etre applique a toute collection de dimensions et de relations supportees par ces dimensions, au moyen de structures hierarchiques permettant de reguler les ajustements. Cet operateur permet d'experimenter en ligne la definition des relations au cours du traitement multidimensionnel, controlant ainsi le resultat du processus de synthese. L'operateur peut s'utiliser pour egaliser des attributs en fonction de leurs positions hierarchiques lors du traitement des mesures dans un hypercube. En outre, il peut s'utiliser pour reveler des dependances cachees entre variables lorsqu'on travaille sur des mesures avec des niveaux de granularite differents. Tel est le cas dans le traitement de donnees de sante pour des individus ou des relations heterogenes provenant de sources differentes, telles qu'une combinaison de mesures concernant des individus, leurs ancetres et l'environnement. Les procedes de l'invention sont generiques, s'appliquent a toute conception de depot de donnees et permettent le traitement analytique en ligne (OLAP) pour une gamme plus etendue de donnees et de structures par rapport aux schemas d'application actuels.

#### Legal Status (Type, Date, Text)

Publication	20010712	A2 Without international search report and to be republished upon receipt of that report.
Examination	20011108	Request for preliminary examination prior to end of 19th month from priority date
Correction	20011206	Corrections of entry in Section 1: under (30) replace "09/457,786" by "09/475,786"
Republication	20011206	A2 Without international search report and to be republished upon receipt of that report.
Correction	20011206	Corrections of entry in Section 1:
Search Rpt	20020606	Late publication of international search report
Republication	20020606	A3 With international search report.

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DIALOG(R) File 349:PCT FULLTEXT  
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00809370 \*\*Image available\*\*

**DYNAMIC RECURSIVE BUILD FOR MULTIDIMENSIONAL DATABASES AND METHODS AND APPARATUS THEREOF**

**CONSTRUCTION RECURSIVE DYNAMIQUE POUR BASES DE DONNEES MULTIDIMENSIONNELLES ET PROCEDES ET APPAREIL ASSOCIES**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200142987 A1 20010614 (WO 0142987)

Application: WO 2000US33360 20001207 (PCT/WO US0033360)

Priority Application: US 99460536 19991213

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DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

International Patent Class: G06F-012/00; G06F-015/16

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9108

**English Abstract**

A multidimensional integration system (300) for storing and retrieving data from a multidimensional database. The multidimensional integration system (300) accesses a source database (302) to obtain information needed to produce a multidimensional output (304). The multidimensional data integrator (306) accesses source database (302) and generates instructions necessary to produce a multidimensional output (304). The multidimensional data integrator (306) can use an Application Program Interface (308) to communicate with a multidimensional server (310) that ultimately produces the multidimensional output (304). The multidimensional data Integrator (306) can also interact with a multidimensional architect (312) and a multidimensional designer (314). The Multidimensional architect (312) is generally used to define a Meta-Model to solve a multitude of analytical problems related to a general problem category.

**French Abstract**

L'invention concerne un systeme (300) d'integration multidimensionnel concu pour stocker et extraire des donnees d'une base de donnees multidimensionnelle. Ledit systeme (300) accede a une base de donnees source (302) pour obtenir les informations necessaires pour produire une sortie multidimensionnelle (304). L'integrateur (306) de donnees multidimensionnel accede a la base de donnees source (302) et genere les instructions requises pour produire une sortie multidimensionnelle (304). Ledit integrateur (306) peut utiliser l'interface de programme d'application (308) pour communiquer avec un serveur multidimensionnel (310) qui, en fin de compte, produit la sortie multidimensionnelle (304).

Ledit integrateur (306) peut egalement interagir avec un architecte (312) et un concepteur (314) multidimensionnels. L'architecte multidimensionnel (312) est generalement utilise pour definir un meta-modele pour resoudre une multitude de problemes analytiques se rapportant a une categorie de probleme d'ordre general.

**Legal Status (Type, Date, Text)**

Publication 20010614 A1 With international search report.

Publication 20010614 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20011025 Request for preliminary examination prior to end of 19th month from priority date

20/5/9 (Item 5 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00803948 \*\*Image available\*\*

**METHOD OF AND SYSTEM FOR ENABLING BRAND-IMAGE COMMUNICATION BETWEEN VENDORS AND CONSUMERS**

**PROCEDE ET SYSTEME PERMETTANT DE COMMUNIQUER UNE IMAGE DE MARQUE ENTRE DES VENDEURS ET DES CONSOMMATEURS**

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**Legal Representative:**

PERKOWSKI Thomas J (agent), Thomas J. Perkowski, P.C., Soundview Plaza,  
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**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200137540 A2-A3 20010525 (WO 0137540)

Application: WO 2000US31757 20001117 (PCT/WO US0031757)

Priority Application: US 99441973 19991117; US 99447121 19991122; US  
99465859 19991217; US 2000483105 20000114; US 2000599690 20000622; US  
2000641908 20000818; US 2000695744 20001024

**Parent Application/Grant:**

Related by Continuation to: US 99441973 19991117 (CIP); US 99447121  
19991122 (CIP); US 99465859 19991217 (CIP); US 2000483105 20000114  
(CIP); US 2000599690 20000622 (CIP); US 2000641908 20000818 (CIP); US  
2000695744 20001024 (CIP)

**Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ**

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

International Patent Class: G06F-015/16; G09G-005/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 116871

**English Abstract**

An integrated consumer product marketing and information system which enables manufacturers, retailers, and consumers to carry out product-related functions: an internet product information subsystem (2) delivers information to interested consumers, using universal product code information in particular (3); product advertising is delivered to consumers (2A) within physical and electronic shopping environments; a

sales analysis and forecasting subsystem (5) enables retailer purchasing agents to make obtain information about manufacturers' products in order to make informed purchases along the supply chain.

#### French Abstract

L'invention concerne un systeme integre de maniere fonctionnelle et un procede de commercialisation, de distribution et d'education/information de produits de consommation, qui permettent a des fabricants, a des revendeurs, a leurs agents respectifs et aux consommateurs d'accomplir quatre fonctions fondamentales associees au produit du cote de la demande du circuit de detail, a savoir : permettre aux responsables du commercialisation, de la marque et/ou du produit de creer et de gerer une image de marque composee pour chaque bien de consommation a la vente aussi bien sur le marche physique qu'electronique, a permettre aux fabricants, aux revendeurs et a leurs agents publicitaires et de commercialisation de montrer a des consommateurs des publicites relatives aux biens de consommation, dans un point de vente ou a proximite de ce dernier dans les environnements de commerce au detail aussi bien physique qu'electronique, de facon a garantir que l'image de marque voulue du fabricant soit diffusee et, parallelement, que la demande du produit soit influencee positivement. Le systeme et le procede permettent en outre aux revendeurs, aux fabricants et a leurs agents publicitaires et de commercialisation de promouvoir les produits de consommation aupres des consommateurs dans des environnements de commerce au detail aussi bien physique qu'electronique afin d'influencer positivement (c'est-a-dire de reduire) l'offre de ces produits dans les stocks et de promouvoir les ventes et les profits. Le systeme et le procede permettent aussi aux consommateurs de demander et d'obtenir des informations fiables concernant un produit d'un fabricant afin d'effectuer des achats en toute connaissance de cause du cote de la demande du circuit de detail, tout en permettant a des acheteurs au detail de demander et d'obtenir des informations fiables concernant un produit d'un fabricant afin d'effectuer des achats en toute connaissance de cause du cote de l'offre, influencant ainsi la demande du produit de maniere positive.

#### Legal Status (Type, Date, Text)

Publication 20010525 A2 Without international search report and to be republished upon receipt of that report.  
Search Rpt 20020926 Late publication of international search report  
Republication 20020926 A3 With international search report.  
Republication 20020926 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.  
Examination 20030313 Request for preliminary examination prior to end of 19th month from priority date

20/5/10 (Item 6 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00777964 \*\*Image available\*\*

METHOD OF AND SYSTEM FOR MANAGING MULTI-DIMENSIONAL DATABASES USING MODULAR-ARITHMETIC BASED ADDRESS DATA MAPPING PROCESSES  
PROCEDE ET SYSTEME DE GESTION DE BASES DE DONNEES MULTIDIMENSIONNELLES PAR UTILISATION DE PROCEDES DE CORRESPONDANCE DE DONNEES D'ADRESSE SE BASANT SUR L'ARITHMETIQUE MODULAIRE

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#### Patent and Priority Information (Country, Number, Date):

Patent: WO 200111497 A1 20010215 (WO 0111497)



Application: WO 2000IB1100 20000804 (PCT/WO IB0001100)  
Priority Application: US 99368241 19990804  
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ  
DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM  
Main International Patent Class: G06F-017/30  
Publication Language: English  
Filing Language: English  
Fulltext Availability:  
Detailed Description  
Claims  
Fulltext Word Count: 16804

#### English Abstract

An improved method of and a system for managing data elements in a multi-dimensional database (MDB) supported upon a parallel computing platform using modular-arithmetic based address data mapping (i.e. translation) processes. In one illustrative embodiment, the system comprises a parallel computing platform, an address data mapping mechanism, and a data management mechanism. The parallel computing platform has a plurality of processors and one or more storage volumes for physically storing data elements therein at integer-encoded physical addresses specified in Processor Storage Space. The location of each data element in the MDB is specified in MDB Space by integer-encoded business dimensions associated with the data element. The address data mapping mechanism maps the integer-encoded MDB dimensions associated with each data element into an integer-encoded data storage address within the storage volumes. The data management mechanism manages the data elements stored in the storage volumes using the integer-encoded data storage addresses generated during the address data mapping process. The use of modular-arithmetic functions in the address data mapping mechanism ensures that the data elements in the MDB are uniformly distributed among the plurality of processors, for balanced loading and processing. The present invention can be used to realize (i) an improved MDB for supporting on-line analytical processing (OLAP) operations, (ii) an improved Internet URL Directory for supporting on-line information searching operations by Web-enabled client machines, as well as (iii) diverse types of MDB-based systems for supporting real-time control of processes in response to complex states of information reflected in the MDB.

#### French Abstract

La presente invention concerne un procede et un systeme, ayant subi des ameliorations, de gestion d'elements de donnee dans une base de donnees multidimensionnelle (MDB) supportee sur une plate-forme de calcul parallele qui utilise des procedes de correspondance de donnees d'adresse (c'est-a-dire de la traduction) se basant sur l'arithmetique modulaire. Dans un mode de realisation caracteristique, le systeme comprend une plate-forme de calcul parallele, un mecanisme de correspondance de donnees d'adresse et un mecanisme de gestion de donnees. Ladite plate-forme de calcul parallele presente plusieurs processeurs et un ou plusieurs volumes de stockage permettant d'y stocker physiquement des elements de donnee, a des adresses physiques codees par des entiers qui sont specifiees dans l'espace de stockage de processeur. L'emplacement de chaque element de donnee dans la MDB est specifie dans l'espace de la MDB par des cotes commerciales codees par des entiers, qui sont associees a l'element de donnee. Le mecanisme de correspondance de donnees d'adresse fait correspondre les cotes de la MDB codees par des entiers, qui sont associees a chaque element de donnee, a une adresse de stockage de donnees, codee par des entiers, a l'interieur des volumes de stockage. Le mecanisme de gestion de donnees gere les elements de donnee stockes dans les volumes de stockage, par utilisation des adresses de stockage de donnees, codees par des entiers, qui sont generees pendant le processus de

correspondance de donnees d'adresse. L'utilisation de fonctions d'arithmetique modulaire dans le mecanisme de correspondance de donnees d'adresse assure la distribution uniforme des elements de donnee dans la MDB, parmi les processeurs, pour un telechargement et un traitement equilibres. Cette invention peut etre appliquee afin de realiser (i) une MDB amelioree, permettant d'assurer des operations de traitement analytique en ligne (OLAP), (ii) un repertoire d'adresses URL sur Internet ameliore, permettant d'assurer des operations de recherche d'informations en ligne par des machines client interactives a acces Internet, ainsi que (iii) divers types de systemes a base de MDB, permettant d'assurer la commande en temps reel de processus, en reponse a des etats complexes d'informations reflechies dans la MDB.

Legal Status (Type, Date, Text)

Publication 20010215 A1 With international search report.

Publication 20010215 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

Examination 20010517 Request for preliminary examination prior to end of 19th month from priority date

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DIALOG(R)File 349:PCT FULLTEXT  
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00777016

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MAINTAINING DATA IN AN E-COMMERCE BASED TECHNICAL ARCHITECTURE  
SYSTEME, PROCEDE ET ARTICLE MANUFACTURE DE MAINTIEN DES DONNEES DANS UNE ARCHITECTURE TECHNIQUE DE COMMERCE ELECTRONIQUE

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200109751 A2 20010208 (WO 0109751)

Application: WO 2000US20546 20000728 (PCT/WO US0020546)

Priority Application: US 99364535 19990730

Designated States: AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CU CZ DE DK DZ EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 124205

English Abstract

A system, method and article of manufacture are provided and include a plurality of sub-activities. Each sub-activity includes sub-activity logic adapted to generate an output based on an input received from a user upon execution, and a plurality of activities which each execute the sub-activities upon being selected for accomplishing a goal associated with the activity. An interface is provided between a first server and a second server with a proxy component situated between the first and

second servers to manage business components used by the sub-activities. Information used by the sub-activities is persisted during the executive of the sub-activities. Application consistency is maintained by referencing text phrases through a short codes framework. Additionally, software modules which support the sub-activities are also tested.

#### French Abstract

Cette invention se rapporte a un systeme, a un procede et a un article manufacture qui contiennent plusieurs sous-activites. Chaque sous-activite comporte une logique de sous-activite concue pour generer une sortie sur la base d'une entree recue en provenance d'un utilisateur apres execution, et plusieurs activites qui executent chacune les sous-activites apres avoir ete selectionnees pour atteindre un objectif associe a l'activite en question. Une interface est prevue entre un premier serveur et un second serveur, un element de procurement etant place entre les premier et second serveurs, afin de gerer les elements commerciaux utilises par les sous-activites. L'information utilisee par les sous-activites est preservee pendant l'execution des sous-activites. On maintient la coherence de l'application en referencant des phrases de textes via une structure de codes courts. Les modules de logiciel qui prennent en charge les sous-activites sont en outre egalement testes.

#### Legal Status (Type, Date, Text)

Publication 20010208 A2 Without international search report and to be republished upon receipt of that report.  
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DIALOG(R) File 349:PCT FULLTEXT  
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00774519 \*\*Image available\*\*

#### AUTOMATED SYSTEM FOR CONDITIONAL ORDER TRANSACTIONS IN SECURITIES OR OTHER ITEMS IN COMMERCE

#### SYSTEME AUTOMATIQUE DE NEGOCIATION CONDITIONNELLE DE VALEURS MOBILIERES OU D'AUTRES EFFETS DE COMMERCE

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#### Patent and Priority Information (Country, Number, Date):

Patent: WO 200108065 A1 20010201 (WO 0108065)  
Application: WO 2000US19567 20000724 (PCT/WO US0019567)  
Priority Application: US 99359686 19990723

#### Designated States: AU BR CN JP KR MX RU US ZA

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

#### Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

#### Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 15515

#### English Abstract

An apparatus and method of automatically and anonymously buying and selling positions in fungible properties between subscribers over a network is described, an embodiment of which relates to the buying and selling of securities or contracts where the offer to purchase or sell

the property may be conditioned upon factors such as the ability to purchase or sell other property or the actual purchase or sale of other property. The system described includes methods for matching buy and sell orders using other markets to effect the execution of transactions without violating conditions set by the subscriber, and reporting prices to third parties. A communication system (10, 12, 14) is described which allows subscribers to communicate anonymously for the purpose of effecting transactions.

#### French Abstract

Système et procédé servant à acheter et à vendre, de façon automatique et anonyme, des titres de propriétés fongibles entre des abonnés par l'intermédiaire d'un réseau, dont un mode de réalisation spécifique consiste à acheter et à vendre des valeurs mobilières ou des contrats pour lesquels l'offre d'achat ou de vente de la propriété peut être conditionnée par des facteurs tels que la possibilité d'acheter ou de vendre une autre propriété ou l'achat ou la vente réels d'une autre propriété. Ce système concerne des procédés consistant à mettre en correspondance les ordres de vente et d'achat au moyen d'autres marchés afin d'exécuter des transactions sans faillir aux conditions établies par l'abonné et sans rapporter les prix à des tiers. L'invention concerne également un système de communication (10, 12, 14) permettant aux abonnés de communiquer anonymement dans le but d'effectuer des transactions.

#### Legal Status (Type, Date, Text)

Publication 20010201 A1 With international search report.

Publication 20010201 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

Examination 20010920 Request for preliminary examination prior to end of 19th month from priority date

20/5/13 (Item 9 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00774495 \*\*Image available\*\*

#### METHOD AND SYSTEMS FOR MAKING OLAP HIERARCHIES SUMMARISABLE PROCÉDE ET SYSTEMES PERMETTANT DE RESUMER DES HIERARCHIES DE TRAITEMENT ANALYTIQUE EN LIGNE (OLAP)

##### Patent Applicant/Assignee:

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##### Patent Applicant/Inventor:

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DYRESON Curtis E, Fr. Bajers Vej 70, DK-9220 Aalborg O, DK, DK  
(Residence), DK (Nationality)

##### Legal Representative:

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##### Patent and Priority Information (Country, Number, Date):

Patent: WO 200108041 A1 20010201 (WO 0108041)

Application: WO 2000DK354 20000630 (PCT/WO DK0000354)

Priority Application: DK 991045 19990721

Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY  
BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK  
(utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB  
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KR (utility model) KZ LC LK  
LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK  
SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 21609

#### English Abstract

A method, a computer system and a computer programme product for a computer system for transforming general On-line Analytical Processing (OLAP) hierarchies into summarisable hierarchies whereby pre-aggregation is disclosed, by which fast query response times for aggregation queries without excessive storage use is made possible even when the hierarchies originally are irregular. Pre-aggregation is essential for ensuring adequate response time during data analysis. Most OLAP systems adopt the practical pre-aggregation approach, as opposed to full pre-aggregation, of materialising only select combinations of aggregates and then re-use these for efficiently computing other aggregates. However, this re-use of aggregates is contingent on the dimension hierarchies and the relationships between facts and dimensions satisfying stringent constraints. The present invention significantly extends the scope of practical pre-aggregation by transforming irregular dimension hierarchies and fact-dimension relationships into well-behaved structures that enable practical pre-aggregation.

#### French Abstract

La presente invention concerne un procede, un systeme d'ordinateur et un produit logiciel destines a transformer des hierarchies OLAP en hierarchies resumees, dans lequel une pre-agregation est permise, et par lequel on peut obtenir des temps de reponse rapide de requete, pour des requetes d'agregation, sans une utilisation de stockage excessive, meme lorsque les hierarchies de depart sont irregulieres. Une pre-agregation est essentielle afin d'assurer un temps de reponse adequat durant l'analyse de donnees. La plupart des systemes OLAP adoptent l'approche pre-agregation pratique, par opposition a la pre-agregation complete, de materialiser seulement des combinaisons choisies d'agregats et de les reutiliser afin de calculer efficacement d'autres agregats. Cependant, cette reutilisation d'agregats repose sur les hierarchies de dimension et les relations entre des faits et des dimensions satisfaisant des contraintes rigoureuses. La presente invention permet d'etendre considerablement la portee de la pre-agregation pratique en transformant des hierarchies de dimension irreguliere et des relations fait-dimension en structures normales permettant la pre-agregation pratique.

#### Legal Status (Type, Date, Text)

Publication 20010201 A1 With international search report.

Publication 20010201 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

Examination 20010419 Request for preliminary examination prior to end of 19th month from priority date

20/5/14 (Item 10 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00769406 \*\*Image available\*\*

INTEGRATED BUSINESS-TO-BUSINESS WEB COMMERCE AND BUSINESS AUTOMATION SYSTEM  
SYSTEME INTEGRE D'AUTOMATISATION DES ECHANGES COMMERCIAUX ENTRE ENTREPRISES  
PAR L'INTERNET

Patent Applicant/Inventor:

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Legal Representative:

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Box 1404, Alexandria, VA 22313-1404, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200102927 A2-A3 20010111 (WO 0102927)  
Application: WO 2000US16739 20000616 (PCT/WO US0016739)  
Priority Application: US 99334688 19990617

Parent Application/Grant:

Related by Continuation to: US 99334688 19990617 (CON)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE

DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI

SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 51133

English Abstract

The present invention, generally speaking, provides within a self-sufficient single application a general business solution (figure 2B) for end-to-end, continuous-flow, business-to-business electronic commerce, enabling the virtual enterprise in which the entire business can be run via a web browser (figure 3). The self-sufficient single application (figure 2B) provides flexibility, affordability and business scalability. Flexibility is achieved using a unitary "solid-state" web enabled database (figure 3) having a "lowest-common-denominator" item record, or central item table, that serves as the fundamental building block of the system. (The level of granularity of the item record is that used in common commercial exchange--e.g., boxes, pounds, gross, hours, etc.--depending on the nature of the item. The measure may be physically measure or a measure of time, or any other appropriate measure. That is, if a good or service can be measured, then the present system may be used to deal in that good or service.) Each item record (figure 3) contains business domain-specific fields pertaining to some and preferably all of the following business domains: products (figure 3), payments (figure 3), performance (figure 3) and personnel (figure 3).

French Abstract

Cette invention offre de facon generale dans une application unique autonome une solution generale pour des echanges de commerce electronique entre entreprises en flux continu et de bout en bout, ce qui permet a l'entreprise virtuelle d'effectuer toute l'operation commerciale via un navigateur Web. Cette application unique autonome a l'avantage d'etre flexible, d'etre financierement abordable et d'etre commercialement evolutive. On garantit la flexibilite en utilisant une base de donnees Web de type "etat solide" ayant un fichier d'article du type "plus petit denominateur commun", ou un tableau d'article central, qui sert de bloc de base pour constituer le systeme. (Le niveau de granularite du fichier article est celui utilise dans les echanges commerciaux courants-, par exemple, boites, livres, poids brut, heures, etc...- selon la nature de l'article. La mesure peut etre une mesure physique ou une mesure de temps, ou tout autre mesure appropriee. Si un produit ou un service peut etre mesure, alors ce systeme peut servir a effectuer une transaction avec ce produit ou ce service). Chaque fichier article contient des champs d'operations commerciales specifiques aux domaines concernant une partie ou de preference la totalite des domaines commerciaux suivants: produits, paiements, rendement et personnel. Ces domaines commerciaux englobent clients, partenaires, operations financieres, logistique, services, etc. Le logiciel d'application de la base de donnees lit les fichiers article, organise les informations pertinentes selectionnees a partir des fichiers article, et dispose les informations pertinentes selectionnees sous forme de presentations specifiques aux domaines. Toute fonctionnalite venant enrichir le systeme peut facilement etre realisee

par l'adjonction de champs appropriées au fichier d'article. Par exemple, un domaine "XYZ" peut être ajouté à la base de données en ajoutant les champs X, Y, Z au fichier article. La structure de base de la base de données ne change pas, seule la façon dont les données sont disposées et vues change. La configuration est par conséquent très flexible et supporte facilement les changements. Cette organisation permet à la base de données à la fois, d'être complète d'une part, et d'assurer l'accès rapide aux données d'autre part avec un degré d'intégrité élevé. La notion d'abordabilité financière est réalisée à l'aide d'un matériel courant de grande distribution peu coûteux, tels que les PC. La qualité évolutive du système, rendue possible grâce à sa structure foncièrement autonome, est obtenue par l'intégration des PC dans un réseau informatique de telle sorte que, étant donné un univers de fonctions commerciales et un univers de partenaires commerciaux, les données requises pour la mise en œuvre de l'univers des fonctions commerciales sont stockées dans chaque PC pour différents sous-ensembles de partenaires commerciaux. De même, l'univers des fonctions commerciales peut être repartitionné et mis en œuvre dans différentes machines, assurant ainsi le caractère évolutif de ce système d'échange commerciaux. Les demandes provenant de partenaires commerciaux sont acheminées vers les PC appropriées en fonction de l'identité du demandeur. Les données sont extraites des divers PC selon les besoins afin d'être incluses dans des rapports complets d'activité commerciales. Ce scénario représente l'inverse de la situation dans laquelle toutes les données d'une activité commerciale sont contenues dans une seule base de données.

Legal Status (Type, Date, Text)

Publication 20010111 A2 Without international search report and to be republished upon receipt of that report.  
 Examination 20011101 Request for preliminary examination prior to end of 19th month from priority date  
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 DIALOG(R) File 349:PCT FULLTEXT  
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00762439 \*\*Image available\*\*

**METHOD AND APPARATUS FOR DATA ACCESS TO HETEROGENEOUS DATA SOURCES**  
**PROCEDE ET APPAREIL PERMETTANT D'ACCEDER A DES SOURCES DE DONNEES HETEROGENES**

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Legal Representative:

BASINSKI Erwin J (et al) (agent), Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304-1018, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200075849 A2-A3 20001214 (WO 0075849)  
 Application: WO 2000US4249 20000218 (PCT/WO US0004249)  
 Priority Application: US 99328049 19990608

Parent Application/Grant:

Related by Continuation to: US 99328049 19990608 (CIP)

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM

EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS

LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM

TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60  
International Patent Class: G06F-017/30  
Publication Language: English  
Filing Language: English  
Fulltext Availability:  
Detailed Description  
Claims  
Fulltext Word Count: 34615

**English Abstract**

The present invention is a middleware system which can provided efficient access to disparate data sources such as relational databases, non-relational databases, multidimensional databases and the like, in a manner which requires the selection of the data access parameters to be done only once and wherein these selected parameters are thereafter useable for the desired data access regardless of changes to the file structures of the data sources themselves. Additionally, access to newly specified data sources can be easily added to the system. Obtained data from the disparate data sources are displayed in a common format regardless of the source of the data and are displaced as streamed result sets.

**French Abstract**

L'invention concerne un systeme d'intergiciel offrant un acces efficace a diverses sources de donnees, telles que des bases de donnees relationnelles, non relationnelles, multidimensionnelles et analogues, de telle facon que les parametres d'accès aux donnees ne puissent etre selectionnes qu'une seule fois et que ces derniers soient utilisables par la suite en vue de l'accès aux donnees desirees sans qu'il soit tenu compte des modifications apportees aux structures de fichier des sources de donnees elles-memes. En outre, l'accès a des sources de donnees nouvellement specifiees peut etre facilement ajoute au systeme. Les donnees provenant des diverses sources de donnees sont affichees de facon continue, sous la forme d'ensembles de resultats, dans un format commun qui ne tient pas compte de la source des donnees.

Legal Status (Type, Date, Text)

Publication 20001214 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20010315 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20020321 Late publication of international search report  
Republication 20020321 A3 With international search report.

20/5/16 (Item 12 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00748798 \*\*Image available\*\*

COLLABORATIVE CREATION, EDITING, REVIEWING, AND SIGNING OF ELECTRONIC DOCUMENTS

CREATION, EDITION, VERIFICATION ET SIGNATURE COLLECTIVES DE DOCUMENTS ELECTRONIQUES

Patent Applicant/Assignee:

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Inventor(s):

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Legal Representative:

RAUBVOGEL Amir H, Fenwick & West LLP, Two Palo Alto Square, Palo Alto, CA 94306, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200062220 A1 20001019 (WO 0062220)  
Application: WO 2000US10066 20000413 (PCT/WO US0010066)  
Priority Application: US 99129283 19990413; US 99129011 19990413; US 99335443 19990617; US 2000546805 20000411

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE



ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA  
UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

International Patent Class: G06F-001/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 27799

#### English Abstract

A virtual signing room facilitates the collaborative creation, editing, reviewing, and signing of electronic documents by parties situated in remote locations. Access to selected parts of documents is provided. The virtual signing room accepts and processes digital signatures coupled with secure authentication of parties to implement document signing. Audit trails and revision tracking are also enabled.

#### French Abstract

L'invention concerne un <=local de signature>= virtuel facilitant la creation, l'edition, la verification et la signature collectives de documents electroniques par des parties situees a des emplacements eloignes, ce local fournissant egalement un acces a certaines parties de ces documents. Ce local de signature virtuel accepte et traite des signatures numeriques couplees a une authentification securisee des parties susmentionnees, ce qui permet la signature desdits documents. Ce local definit egalement des pistes de verification et permet le suivi de versions successives.

#### Legal Status (Type, Date, Text)

Publication 20001019 A1 With international search report.

Publication 20001019 A1 With amended claims and statement.

Examination 20010104 Request for preliminary examination prior to end of 19th month from priority date

20/5/17 (Item 13 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00555967 \*\*Image available\*\*

**MULTI-DIMENSIONAL DATA MANAGEMENT SYSTEM**  
**SYSTEME DE GESTION DE DONNEES MULTIDIMENSIONNELLES**

Patent Applicant/Assignee:

ASPECT DEVELOPMENT,

Inventor(s):

ALTHOFF James,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200019340 A1 20000406 (WO 0019340)

Application: WO 99US22674 19990930 (PCT/WO US9922674)

Priority Application: US 98102463 19980930

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK

DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM

TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY

KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Main International Patent Class: G06F-017/30

International Patent Class: G06F-003/14

Publication Language: English

Fulltext Availability:

Detailed Description

English Abstract

Multi-dimensional data is organized into classes which correspond to each of the dimensions that characterize the data. All relevant data is consolidated into a fact table (30), which is based upon information of interest. The data within this table is linked to the top level of each class that corresponds to a different dimension of data, and subclasses which exist within a given dimension of class automatically inherit the linked reference to the consolidated data. A user can thereby select search criteria (32) within particular classes that correspond to the dimensions of interest. This search criteria is then used to form a query which is applied to a relational database, to obtain the desired results.

French Abstract

On organise des donnees multidimensionnelles en categories correspondant a chacune des dimensions caracterisant ces donnees. On regroupe toutes les donnees pertinentes dans une table de faits (30) basee sur des informations recherchees. Les donnees contenues dans cette table sont reliees au niveau superieur de chaque categorie correspondant a une dimension differente de donnees, et les sous-categories existant a l'interieur d'une dimension donnee de categorie heritent automatiquement de la reference de liaison aux donnees regroupees. L'utilisateur peut, de ce fait, selectionner des criteres de recherche (32) dans les categories correspondant aux dimensions recherchees. On utilise ensuite ces criteres de recherche afin de formuler une demande qu'on applique a une base de donnees relationnelles afin d'obtenir les resultats souhaitees.

20/5/18 (Item 14 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00526306 \*\*Image available\*\*

SYSTEM AND METHOD FOR UPDATING A MULTI-DIMENSIONAL DATABASE

SYSTEME ET PROCEDE DE MISE A JOUR D'UNE BASE DE DONNEES MULTIDIMENSIONNELLE

Patent Applicant/Assignee:

INFORMATION ADVANTAGE,

Inventor(s):

DRAYTON Jay Thomas,  
YORK Michael,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9957658 A1 19991111

Application: WO 99US9633 19990503 (PCT/WO US9909633)

Priority Application: US 9871283 19980501

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Main International Patent Class: G06F-017/30

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 8153

English Abstract

A data warehouse system and method. The data warehouse includes a memory and a processor. The memory includes a database having a plurality of data entries. The processor includes a cache and an override engine, wherein the cache includes a subset of the plurality of data entries and wherein the override engine extracts data from the cache for viewing by a user, modifies the data in response to one or more user commands and saves the user commands to a file for later application to the database.

French Abstract

L'invention concerne un systeme et un procede d'entreposage de donnees. Ce systeme d'entreposage de donnees comprend une memoire et un processeur. La memoire comporte une base de donnees possedant plusieurs

entrees de donnees. Le processeur comprend une antememoire ainsi qu'un moteur prioritaire. L'antememoire comporte un sous-ensemble de plusieurs entrees de donnees, et le moteur prioritaire extrait des donnees a partir de l'antememoire, aux fins de visualisation par un utilisateur, modifie les donnees en reponse a une ou plusieurs commandes de l'utilisateur et conserve les commandes de l'utilisateur dans un fichier, aux fins d'application ulterieure a la base de donnees.

20/5/19 (Item 15 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00484855 \*\*Image available\*\*

INTEGRATED PROXY INTERFACE FOR WEB BASED DATA MANAGEMENT REPORTS  
INTERFACE MANDATAIRE INTEGRE POUR RAPPORTS DE GESTION DE DONNEES BASEE SUR  
LE WEB

Patent Applicant/Assignee:

BRANDT Andre R,  
PILLAI Sajan J,

Inventor(s):

BRANDT Andre R,  
PILLAI Sajan J,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9916207 A1 19990401

Application: WO 98US20148 19980925 (PCT/WO US9820148)

Priority Application: US 9760655 19970926

Designated States: AU BR CA JP MX SG AT BE CH CY DE DK ES FI FR GB GR IE IT  
LU MC NL PT SE

Main International Patent Class: H04L-009/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 33150

English Abstract

An Intranet/Internet/Web-based data management tool that provides a common GUI enabling the requesting, customizing, scheduling and viewing of various types of priced call detail data reports pertaining to a customer's usage of telecommunications services. The Web-based reporting system tool comprises a novel Web-based, client-server application integrated with an operational data management/storage infrastructure that enables customers to access their own relevant data information timely, rapidly and accurately through the GUI client interface. The data management system infrastructure is designed to enable the secure initiation, acquisition, and presentation of telecommunications priced call detail data reports to customer workstations (51) implementing a web browser (50).

French Abstract

L'invention concerne un outil de gestion de donnees basee sur l'Intranet/l'Internet/le Web fournissant une interface utilisateur graphique commune permettant de demander, de personnaliser, de planifier et de visualiser divers types de rapports de donnees sur les details d'appels tarifies relatifs a l'utilisation de services de telecommunications par des clients. L'outil du systeme faisant etat de rapports sur la base du Web comprend une nouvelle application client/serveur basee sur le Web integree a une infrastructure de gestion/stockage de donnees operationnelles permettant a des clients d'accéder a leurs propres informations sur des donnees pertinentes de facon opportune, rapide et precise, par l'intermediaire de l'interface client IUG. L'infrastructure du systeme de gestion de donnees est concu pour permettre le declenchement, l'acquisition ainsi que la presentation securisees de rapports de donnees sur le detail des appels tarifies de telecommunications a des postes de travail (51) de clients mettant en application un navigateur Web (50).

20/5/20 (Item 16 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00484854 \*\*Image available\*\*

**DATA WAREHOUSING INFRASTRUCTURE FOR WEB BASED REPORTING TOOL**  
**INFRASTRUCTURE D'EMMAGASINAGE DE DONNEES POUR OUTIL D'ETABLISSEMENT DE**  
**RAPPORT BASE SUR LE WEB**

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9916206 A1 19990401  
Application: WO 98US20141 19980925 (PCT/WO US9820141)  
Priority Application: US 9760655 19970926

Designated States: AU BR CA JP MX SG AT BE CH CY DE DK ES FI FR GB GR IE IT  
LU MC NL PT SE

Main International Patent Class: H04L-009/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 45376

**English Abstract**

A data warehousing infrastructure for telecommunications priced call detail data is integrated with a Web/Internet based reporting system providing a common GUI enabling the requesting, customizing, scheduling and viewing of various types of priced call detail data reports. Such an infrastructure performs an extraction process (500) to obtain only those billing detail records of entitled customers, and a harvesting process (600) for transforming the billing records into a star schema format for storage in one or more operational data storage devices. The system is integrated with a database server supporting expedient and accurate access to the customer's telecommunications priced call detail data for priced call detail data report generation.

**French Abstract**

Une infrastructure d'emmagasinement de donnees pour des donnees de details d'appels tarifies de telecommunications est integree a un systeme d'etablissement de rapport base sur le WEB/l'Internet fournissant une interface utilisateur graphique (GUI) commune permettant la demande, la personnalisation, la planification et la visualisation de divers types de rapports de donnees de details d'appels tarifies. Une telle infrastructure execute un traitement d'extraction (500) afin d'obtenir uniquement les fichiers de details de facturation de clients habilites, ainsi qu'un traitement de collecte (600) destine a transformer les fichiers de facturation en un format de schema en etoile permettant le stockage dans un ou dans plusieurs dispositifs de stockage de donnees operationnels. Le systeme est integre a un serveur de bases de donnees assurant un acces pratique et precis aux donnees de details d'appels tarifies des telecommunications du client pour produire un rapport de donnees de details d'appels tarifies.

20/5/21 (Item 17 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00483299     \*\*Image available\*\*

**METHOD AND SYSTEM FOR DATABASE APPLICATION SOFTWARE CREATION REQUIRING  
MINIMAL PROGRAMMING  
PROCEDE ET SYSTEME DE CREATION DE LOGICIEL D'APPLICATION POUR BASE DE  
DONNEES REQUERANT UNE PROGRAMMATION MINIMALE**

Patent Applicant/Assignee:

TENFOLD CORPORATION,

Inventor(s):

WALKER Jeffrey L,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9914651 A2 19990325

Application: WO 98US19108 19980915 (PCT/WO US9819108)

Priority Application: US 97932255 19970917

Designated States: AU CA AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT  
SE

Main International Patent Class: G06F-009/445

International Patent Class: G06F-009/45

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 16864

**English Abstract**

A system and method for computer-assisted database management software creation of a target software application from a description known as dictionary (106) interoperating with universal software application (108). Dictionary (106) contents customize universal application (108) into target software application (100) created from a high-level dialog between an application designer and graphical application editor (104). Application editor (104) provides an environment for editing and creating custom applications and automatically creates security partitioning of responsibilities and users, hierarchical menu structures, groupings of database data elements into efficient sets, database transactions and database partitioning without requiring programming in SQL language by an application designer. The computer stores dictionary (106) in a database for accessing by universal application (108). Dictionary (106) customizes re-usable universal application (108) for interaction with relational databases such as Oracle(R), IBM(R) DB2, and Sybase(R).

**French Abstract**

La presente invention concerne un systeme et un procede de creation de logiciel de gestion de base de donnees assiste par ordinateur d'une application logicielle cible a partir d'une description connue sous forme de dictionnaire (106) fonctionnant avec une application logicielle universelle (108). Le contenu du dictionnaire (106) personnalise l'application universelle (108) en une application logicielle cible (100) creee a partir d'un dialogue de niveau eleve entre un concepteur d'application et un editeur (104) d'application graphique. L'editeur (104) d'application fournit un environnement permettant de creer et d'editer des applications personnalisees. L'editeur cree automatiquement un partitionnement de securite des responsabilites et des utilisateurs, des structures hierarchiques de menu, des groupages d'elements de donnees de base de donnees en ensembles efficaces, des transactions de base de donnees et un partitionnement de base de donnees sans qu'un concepteur d'application ait recours a une programmation en langage SQL. L'ordinateur stocke le dictionnaire (106) dans une base de donnees de sorte qu'une application universelle (108) peut y acceder. Le dictionnaire (106) personnalise une application universelle (108) reutilisable de facon a interagir avec une base de donnees relationnelle telle qu'Oracle(R), IBM(R) et Sybase(R).

Set	Items	Description
S1	2041	RDBMS OR RDB OR RELATIONAL() (DATABASE? OR DATA()BASE? OR D-B)
S2	1150	DIMENSION?
S3	23374	REPORT? OR BLOCK? ? OR OBJECT? OR OLAP? OR ANALYTIC?()REPO-RT?
S4	1122	DRILLDOWN OR DRILL?()DOWN? OR DATAMIN? OR DATA()MINING?
S5	45	((MULTI OR 3 OR THREE)() (DIMENSION?) OR 3D OR THREED)() (DB OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?)) OR DATACUBE? OR HYPERCUBE? OR (DATA OR HYPER)()CUBE?
S6	5	S1 AND (S2 OR S5) AND S3 AND S4
S7	62	S1 AND (S2 OR S5)
S8	36	S7 AND S3
S9	7	S7 AND S4
S10	12995	DRAW? OR DROP? OR XML OR CLICK? OR CUT(N)PASTE OR GUI OR GRAPHICAL()USER()INTERFACE?
S11	8	S7 AND S10
S12	18	S1(5N) (S2 OR S5)
S13	29	S9 OR S11 OR S12 OR S6
S14	28	S13 NOT PY>2000
S15	28	S14 NOT PD>20000403

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Feb  
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*Full Text*

15/3,K/1  
DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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02429767 DOCUMENT TYPE: Company

4D Inc (429767)  
3031 Tisch Way #900  
San Jose, CA 95128 United States  
TELEPHONE: (408) 557-4600  
TOLL FREE TELEPHONE NUMBER: (800) 881-3466  
FAX: (408) 557-4602  
HOMEPAGE: <http://www.4d.com>

RECORD TYPE: Directory

CONTACT: Sales Department

ORGANIZATION TYPE: Corporation  
STATUS: Active

SALES: NA

DATE FOUNDED: 1984  
IMMEDIATE PARENT: 4D SA  
REVISION DATE: 20010930

4D Incorporated, formerly ACI US, is the developer of the 4th Dimension relational database server, which is now the cornerstone of a complete product line. 4D includes Web server...

15/3,K/2  
DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00121001 DOCUMENT TYPE: Review

PRODUCT NAMES: Cognos DecisionStream 6.0.47 (782041)

TITLE: From OLTP Data to Dimensional Data Mart  
AUTHOR: Schumacher, Robin  
SOURCE: Intelligent Enterprise, v2 n18 p56(3) Dec 21, 1999  
ISSN: 1524-3621  
HOMEPAGE: <http://www.intelligententerprise.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20030221

TITLE: From OLTP Data to Dimensional Data Mart

...supported relational engines, and the catalogs store the source and target database connection details, the dimensional framework, and the builds, which are the main DecisionStream unit. All the data in the catalogs is maintained in relational tables, and within the catalogs are hierarchies to define business dimensions. DecisionStream supports unlimited hierarchies, and there are wizards to help create hierarchies and builds. The types of data delivered by DecisionStream are facts, dimensions, and metadata, and it supports most relational database players including Oracle, Informix, Sybase, Microsoft SQL Server, DB2, and ODBC.

DESCRIPTORS: Data Marts; Data Mining; Database Utilities; DB2;  
Decision Support Systems; Information Retrieval; Informix; Oracle

15/3,K/3  
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00118373 DOCUMENT TYPE: Review

PRODUCT NAMES: Dimensional Modeling (841188)

TITLE: Perfect Dimensions : The Right Dimensional Modeling Technique...  
AUTHOR: Purdy, Gregor Brobst, Stephen  
SOURCE: Intelligent Enterprise, v2 n8 p48(5) Jun 1, 1999  
ISSN: 1524-3621  
HOMEPAGE: <http://www.intelligententerprise.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 19991030

PRODUCT NAMES: Dimensional Modeling...

TITLE: Perfect Dimensions : The Right Dimensional Modeling Technique...  
...

A discussion is provided of the value of a well-chosen dimensional modeling technique in deploying analytic data structures that best mesh with an existing relational online...

...large volumes of particularized data with advanced analysis abilities. Users often store data using a RDEMS and support applications with relational OLAP to provide on the fly and standard reports. ROLAP systems allow companies to quickly deploy Web-enabled information access and scheduled reports. Users also can establish complex computations automatically translated by the ROLAP tool into SQL statements required for a report. Each tool has as its core a reporting model based on database design and report building requirements and limitations. Techniques for dimensional modeling are discussed, as are the balance between a suitable physical representation and the implementing RDEMS. Dimensional modeling, a technique used to model databases for analytical applications (particularly those created using ROLAP tools), has more restrictive rules than the entity/relationship model. A dimensional model diagram appears to be similar to an E-R diagram of a normalized conceptual...

DESCRIPTORS: Data Mining ; Database Management; Decision Support Systems; Information Retrieval; Logical Data Modeling; Report Generators

15/3,K/4  
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00109458 DOCUMENT TYPE: Review

PRODUCT NAMES: Red Brick Warehouse 5.1 (363197)

TITLE: Red Brick Warehouse 5.1  
AUTHOR: Rennhackkamp, Martin  
SOURCE: DBMS, v11 n7 p68(4) Jun 1998  
ISSN: 1041-5173  
HOMEPAGE: <http://www.dbmsmag.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: A



REVISION DATE: 19990228

...Brick Warehouse 5.1 from Red Brick Systems offers a unique approach by building in OLAP functionality. It promotes itself as a relational database for OLAP and data mining. Most other vendors see OLAP as a specialized area that requires a specialized server. Red Brick Systems takes the approach of taking the OLAP functions to the data rather than taking the data to the OLAP server. This saves considerably on the amount of data unloading and loading, and duplication. It also maintains the links between multi-dimensional views, making it useful for drill - down operations. Red Brick also takes the data mining tool to the data. This is possible because of the company's collaboration with DataMind Corporation and its use of DataMind's neural network decision tree and statistical algorithms. Red Brick Warehouse is uniquely suitable for...

DESCRIPTORS: Data Mining ; Data Warehouses; Database Management;  
Decision Support Systems; Information Retrieval

15/3,K/5

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00106792 DOCUMENT TYPE: Review

PRODUCT NAMES: UniSQL Fusion Server (691054); Microsoft OLE DB (567981)

TITLE: OLTP versus DSS/ OLAP / Data Mining

AUTHOR: Kim, Won

SOURCE: Journal of Object-Oriented Prog, v10 n7 p68(4) Nov/Dec 1997

ISSN: 0896-8438

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20001130

TITLE: OLTP versus DSS/ OLAP / Data Mining

...of online transaction processing (OLTP) and technology based on decision support system/online analytical processing ( OLAP )/ data mining tools. OLTP applications run the day-to-day business of an enterprise, processing many short...

...number of records, but must support many concurrent users and provide fast response time. DSS/ OLAP applications perform analysis of an enterprise based on several dimensions , using complicated queries against a large shared database. Usual DSS/ OLAP applications are financial analysis, sales forecasts, and so on. They usually read many records, but ...

...mart technology is used to design and create an enterprise database for analysis using DSS/ OLAP software. This is accomplished by integrating, extracting, transforming, and summarizing data from operational databases. Current data mining products can find patterns and directions from a database of formatted RDEMS records, but cannot be used with a database of text documents, images, audios, and videos, but products from Verity, Fulcrum, and Excalibur are emerging to support this type of data mining

DESCRIPTORS: Data Mining ; Decision Support Systems; Distributed  
Objects ; Information Retrieval; Interfaces; OLTP; Pattern Recognition

15/3,K/6

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00106517

DOCUMENT TYPE: Review

PRODUCT NAMES: DataMerchant (677418); brio.web.warehouse (648434);  
Essbase Web Gateway (613584); DSS Web (619981)

TITLE: Now, Olap Meets the Web  
AUTHOR: Harding, Elizabeth U  
SOURCE: Application Development Trends, v4 n12 p70(3) Dec 1997  
ISSN: 1073-9564  
HOMEPAGE: <http://www.spgnet.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20030221

...relational OLAP (ROLAP), and hybrid OLAP (HOLAP), with tools that can gain access to multi-dimensional and relational databases. A product manager for DSSWeb says HOLAP is not equivalent to MOLAP + ROLAP; rather, DSSWeb...

15/3,K/7

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00104705

DOCUMENT TYPE: Review

PRODUCT NAMES: Maestro (484636); Tivoli Enterprise 10 (717517);  
Unicenter AutoSys Job Management 3x (557145); Control-M for Open Systems  
(543331); Event Control Server (ECS) (460176)

TITLE: Job Schedulers Simplify Workload Management  
AUTHOR: Kaplan, Simone  
SOURCE: PC Week, v14 n42 p175(3) Oct 6, 1997  
ISSN: 0740-1604

RECORD TYPE: Review  
REVIEW TYPE: Product Comparison  
GRADE: Product Comparison, No Rating

REVISION DATE: 20020630

...Maestro, Tivoli Systems' Tivoli Management Environment (TME) 10, PLATINUM technology's PLATINUM AutoSys 3x, New Dimensions Software's Control-M for Open Systems, and Vinzant's Event Control Server (ECS) are...  
...platforms and managing large applications such as SAP R/3 need such tools, which have graphical user interfaces (GUIs) that streamline schedule customization tasks. Maestro is a job scheduling suite. TME 10 includes Maestro technology as well. AutoSys 3x requires a RDBMS and runs standalone or over networked machines. Control-M is highly operating system-compatible, while Vinzant provides a point-and-click, drag-and-drop flowchart model that needs no scripting language, in addition to a World Wide Web-based...

...COMPANY NAME: 081957); New Dimension Software Inc...

15/3,K/8

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00104378

DOCUMENT TYPE: Review

PRODUCT NAMES: Essbase Server (591831); Informix MetaCube Online  
Analytical Processing Server (626601); Corel Resero (679925); Hyperion  
OLAP (622915); DSS Objects 5.0 (679933)

**TITLE:** OLAP Spreads  
**AUTHOR:** Foley, John  
**SOURCE:** Information Week, v653 p20(2) Oct 20, 1997  
**ISSN:** 8750-6874  
**HOME PAGE:** http://www.informationweek.com

**RECORD TYPE:** Review  
**REVIEW TYPE:** Product Comparison  
**GRADE:** Product Comparison, No Rating

**REVISION DATE:** 20021024

...need to do serious financial analyses for planning and carrying out projects. OLAP differs from relational database information because rather than two-dimensional tables of data, multidimensional hierarchies, or cubes of data, are used by OLAP. An example...

15/3,K/9  
DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00102203 DOCUMENT TYPE: Review

**PRODUCT NAMES:** PaBLO 4.0 Windows Beta (464686)

**TITLE:** Pablo Eases Data Cube Creation  
**AUTHOR:** Dyck, Timothy  
**SOURCE:** PC Week, v14 n23 p79(1) Jun 9, 1997  
**ISSN:** 0740-1604

**RECORD TYPE:** Review  
**REVIEW TYPE:** Review  
**GRADE:** A

**REVISION DATE:** 20020516

**TITLE:** Pablo Eases Data Cube Creation

...a significant improvement over the manual process currently required of PaBLO administrators in designing multidimensional data cubes for users. Other changes include support for Informix Software's MetaCube and a basic Hypertext...

...has more versatile importing features than CubeCreator because it can import data directly from an RDBMS. CubeCreator can import only from flat files or from Andyne's GQL query and reporting...

...CubeCreator, testers merely imported Oracle data into GQL and exported it with a one-button click to CubeCreator, which automatically parsed the data set and created a starter set of dimensions. When the basic hierarchy was created, users could arrange extant and new dimensions using basic drag-and-drop tools. CubeCreator also automatically constructed a time hierarchy for users, and they could add new members down to a one-second granularity by checking off the dimensions needed.

15/3,K/10  
DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00099966 DOCUMENT TYPE: Review

**PRODUCT NAMES:** BASISPlus (256672); Search 97 (651915)

**TITLE:** Sharpen Your Searches with SGML  
**AUTHOR:** Boeri, Robert J Hensel, Martin  
**SOURCE:** CD-ROM Professional, v9 n12 p58(2) Dec 1996

ISSN: 1049-0833

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20000630

...generalized markup language (SGML), and is particularly sharp at detangling information webs. BASISPlus from Information Dimensions is a client/server relational database system for document management and searching, featuring a multiprocess server architecture. BASISPlus runs on a...

15/3,K/11

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00090311 DOCUMENT TYPE: Review

PRODUCT NAMES: Oracle (004233); N- dimensions /Accounts Payable (005533)  
; N- dimensions /General Ledger (005532); N- dimensions /Fixed Assets  
(005534

TITLE: Computron Financials Help Speed Up Reporting for Colonial...  
AUTHOR: Staff  
SOURCE: Management Accounting, v77 n8 p61(1) Feb 1996  
ISSN: 0025-1690  
HOMEPAGE: <http://www.imanet.org>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20011030

...PRODUCT NAMES: 004233); N- dimensions /Accounts Payable...

...005533); N- dimensions /General Ledger...  
...005532); N- dimensions /Fixed Assets...

...for high-risk drivers, installed a client/server computing system based on the Oracle SQL RDBMS to improve service and support faster, more competitive claims processing. The system was revamped down...

...reporting. Financial products from Computron were chosen for their superior Oracle support; they include N- dimensions General Ledger and Fixed Assets. They also offer a graphical user interface ( GUI ) of high quality and intuitive design. Computron and Colonial worked well together on the installation...

15/3,K/12

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00086533 DOCUMENT TYPE: Review

PRODUCT NAMES: EIS (830191); Decision Support Systems (830241)

TITLE: 3 functions of EIS/DSS tools: navigate, analyze present data  
AUTHOR: Kara, Dan  
SOURCE: Application Development Trends, v3 n1 p94(2) Jan 1996  
ISSN: 1073-9564  
HOMEPAGE: <http://www.spgnet.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20000630

...compact data; they should show relationships among individual data items as intersections of the various dimensions and attributes known to the business person. MDBMSs are designed to do this with relative ease, but tools that use relational database management systems (RDBMSs) as target data stores need a metadata layer that offers multidimensional, logical views of relational data. All EIS/DSS tools provide slice-and-dice and drill - down tools, and some provide traffic lighting or flags that execute actions automatically when a user...

15/3,K/13

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00085191 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D 3.5 Windows (016993)

TITLE: Mac Database Enters Windows  
AUTHOR: Bonner, Paul  
SOURCE: Windows Sources, v3 n11 p22(1) Nov 1995  
ISSN: 1065-9641  
HOMEPAGE: <http://www.winsources.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: B

REVISION DATE: 20010930

ACI US' 4th Dimension , the leading relational database for the Macintosh, has finally released 3.5 for Windows NT, Windows 95, and Windows ...

15/3,K/14

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00083155 DOCUMENT TYPE: Review

PRODUCT NAMES: FileMaker Pro 3.0 Macintosh (719552)

TITLE: How FileMaker Pro 3 relates  
AUTHOR: Colby, Clifford Pearlstein, Joanna  
SOURCE: MacWEEK, v9 n39 p1(2) Oct 2, 1995  
ISSN: 0892-8118  
HOMEPAGE: <http://www.macweek.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: B

REVISION DATE: 20001130

...relationships. The Define Relationships command in the File menu provides the relationships. Tools for a relational database management system ( RDBMS ) differ from those of FoxPro or 4th Dimension , because no graphical overview of relationships is provided and the FileMaker database cannot be compiled...

...a standalone program. RDBMSs are designed with FileMaker's Layout mode. Two useful enhancements include drag -and- drop text and an easier to use Export function. The scripting language is also more powerful...

15/3,K/15  
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00082601 DOCUMENT TYPE: Review

PRODUCT NAMES: ProdeaBeacon 3.0 (481726)

TITLE: New tool turns databases into data warehouses  
AUTHOR: Cole, Barb  
SOURCE: Network World, v12 n26 p27(2) Jun 26, 1995  
ISSN: 0887-7661  
HOMEPAGE: <http://www.nwfusion.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 19990630

Prodea Software's ProdeaBeacon 3.0 client/server product adds online analytical processing ( OLAP ) features to a standard relational database . The product includes the Beacon Application Server, which does the analytical processing and interacts with the RDEMS . The Beacon Client element is a graphical reporting and administration tool. The server portion receives requests from the client, and sends the SQL...

...server. The server will then perform calculations, and send the results to the client. An OLAP differs from a relational database . Instead of storing data in columns and rows, the OLAP stores summaries of data, and provides the means to drill down to relational tables for additional detail. OLAP queries can be very complex and involve multiple data elements or dimensions . Prodea also includes the ProdeaSynergy integration tool for Windows, which allows users to combine off...

DESCRIPTORS: Client/server; Data Warehouses; Database Utilities;  
Information Retrieval; Network Software; Report Generators

15/3,K/16  
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00080740 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D Windows (016993)

TITLE: 4th Dimension crosses over neatly to PC  
AUTHOR: Stoughton, Alan M  
SOURCE: InfoWorld, v17 n31 p103(1) Jul 31, 1995  
ISSN: 0199-6649  
HOMEPAGE: <http://www.infoworld.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: B

REVISION DATE: 20010930

TITLE: 4th Dimension crosses over neatly to PC

ACI US's 4th Dimension relational database is a popular offering for Macintosh users. ACI now offers the product on the Windows...  
...layouts, files may otherwise be known as tables. The software uses a graphical layout and drag and drop method. The product does not enforce referential integrity, and the product handles database input and...

15/3,K/17

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00080369 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D 3.5 Windows (016993)

TITLE: Database maker opens new Windows  
AUTHOR: Ouellette, Tim  
SOURCE: Computerworld, v29 n30 p69(1) Jul 24, 1995  
ISSN: 0010-4841  
HOMEPAGE: <http://www.computerworld.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20020819

ACI US' well known Macintosh relational database , 4th Dimension (4D),  
is being ported to Windows. 4D 3.5 will be based on a single...

15/3,K/18

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00080098 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D 3.5 (016993)

TITLE: ACI enters the Windows dimension  
AUTHOR: Taschek, John  
SOURCE: PC Week, v12 n30 p74(1) Jul 31, 1995  
ISSN: 0740-1604

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: A

REVISION DATE: 20010930

Beta tests of ACI US's 4th Dimension 3.5 relational database  
management system (RDBMS) indicate that it works best for predominantly  
Mac-based organizations that have...

15/3,K/19

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00078242 DOCUMENT TYPE: Review

PRODUCT NAMES: FileMaker Pro Macintosh (719552); 4D First (487627);  
Helix Express Macintosh (394122); FoxPro Macintosh (238139); OMNIS 7  
(351008)

TITLE: Growing DBMSes with users' needs  
AUTHOR: Stevens, Larry  
SOURCE: MacWEEK, v9 n22 p32(2) May 29, 1995  
ISSN: 0892-8118  
HOMEPAGE: <http://www.macweek.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20010930

...for those who do not want to invest the time to learn a full-featured relational database . 4D First is a subset of 4th Dimension , and includes several templates for easy setup. Helix Technologies' Helix Express permits a database to be developed with a point-and- click graphical interface. Besides quick development, changes to the program are easy to make. Microsoft's...

15/3,K/20

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00077326 DOCUMENT TYPE: Review

PRODUCT NAMES: Database Servers (830320)

TITLE: MDD: Database Reaches the Next Dimension

AUTHOR: Finkelstein, Richard

SOURCE: Database Programming & Design, v8 n4 p26(7) Apr 1995

ISSN: 0895-4518

HOME PAGE: <http://www.dbpd.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20010430

...in spreadsheet programs, create calculation routines that can refer to data that exists in any dimension . An RDEMS , although it can support OLAP queries, is not as efficient or easy to use as...

15/3,K/21

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00073775 DOCUMENT TYPE: Review

PRODUCT NAMES: Rae Assist (453854); Arrange (458309); CAT IV (795224); Full Contact (507407); ACT! 2.0 Macintosh (019253)

TITLE: PIMs give business users integrated contact managers

AUTHOR: Miley, Michael

SOURCE: MacWEEK, v9 n5 p33(2) Jan 30, 1995

ISSN: 0892-8118

HOME PAGE: <http://www.macweek.com>

RECORD TYPE: Review

REVIEW TYPE: Product Comparison

GRADE: Product Comparison, No Rating

REVISION DATE: 20001230

...to-scheduled activity links, and company account-to-contact links. Rae Assist uses the 4th Dimension relational database management system ( RDEMS ), with a binder look and-feel, and tabbed, interconnected functions. Arrange is more customizable, arranging...  
...features. Full Contact uses many windows with telecommunications, word processing, and mail merge features, and drag -and- drop link functions for nine views. CAT IV has similar functions, with more templates and forms  
...



15/3,K/22

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00071504 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D Windows (016993); 4D Server (016993)

TITLE: ACI US Opening Windows to 4D; Databases to Run Cross-Platform  
AUTHOR: Rothenberg, Matthew  
SOURCE: MacWEEK, v8 n44 p1(2) Nov 7, 1994  
ISSN: 0892-8118  
HOMEPAGE: <http://www.macweek.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20010930

...has announced plans to release Windows versions of client and server software for its 4th Dimension relational database . The Windows version allows single and multi-user capabilities on Intel-standard PCs. This new...

15/3,K/23

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00067667 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D (016993)

TITLE: Developing 4th Dimension Databases Can Be Lucrative  
AUTHOR: Ankuda, Ellen  
SOURCE: MacTech Magazine, v10 n7 p30(2) Jul 1994  
ISSN: 1067-8360

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20010930

4th Dimension relational database from ACI US presents a tremendous opportunity for C or C++ programmers. 4th Dimension, besides...

15/3,K/24

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00065474 DOCUMENT TYPE: Review

PRODUCT NAMES: Essbase Analysis Server (527459); Express (368113);  
Acumate Enterprise Solution (ES) (464678); LightShip Server (512745); Red  
Brick Warehouse (363197)

TITLE: A Drill - Down Analysis of Multidimensional Databases  
AUTHOR: Frank, Maurice  
SOURCE: DBMS, v7 n8 p60(7) Jul 1994  
ISSN: 1041-5173  
HOMEPAGE: <http://www.dbmsmag.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20021226

**TITLE: A Drill - Down Analysis of Multidimensional Databases**

...s ESSbase organizes data into hierarchies. An individual member can be a part of multiple dimensions without having to be counted twice. IRI's Express is a multidimensional server with a data dictionary and built-in 4GL. The 4GL can access relational databases through embedded SQL. Kenan Technologies's Acumate includes a report writer, 4GL, and the Multiway multidimensional database. It builds in a time dimension and live links to relational databases. Pilot Software's LightShip Server also emphasizes the time dimension for business applications. It stores data as elements in a time-series array and embeds...

15/3,K/25

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00064211 DOCUMENT TYPE: Review

PRODUCT NAMES: CopyFlow (252743); CopyBridge (474631); Publication Administrator (402966); Workflow Administrator (474673); Administration (507725)

**TITLE: Utilities Manage Varied Workflow of Magazines**

AUTHOR: Pope, David

SOURCE: Micro Publishing News, p36(2) Apr 1994

HOME PAGE: <http://www.micropubnews.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20001130

...and CopyBridge. Other products from the same developer include Publication Administrator, which works with 4th Dimension, a Mac relational database management system (RDBMS), to track, manage, and archive production files; Workflow Administrator, a database system...

15/3,K/26

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00062452 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D First (487627)

**TITLE: ACI US 4D First: Simple Database Design**

AUTHOR: Male, Mel

SOURCE: MacWEEK, v8 n10 p39(3) Mar 7, 1994

ISSN: 0892-8118

HOME PAGE: <http://www.macweek.com>

RECORD TYPE: Review

REVIEW TYPE: Review

GRADE: A

REVISION DATE: 20010930

...S 4D First is a scaled-down version of the company's Mac market leading relational database, 4th Dimension, offering less complexity, but still having more power than Claris's FileMaker Pro. The package...

15/3,K/27

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00062062 DOCUMENT TYPE: Review

PRODUCT NAMES: 4D First (487627)

TITLE: 4D First boils down 4th Dimension  
AUTHOR: Tews, Carey Hall, Christopher  
SOURCE: InfoWorld, v16 n11 p99(1) Mar 14, 1994  
ISSN: 0199-6649  
HOMEPAGE: <http://www.infoworld.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20010930

A simplified version of ACI US's 4th Dimension Macintosh relational database is offered in thata company's 4D First. 4D First targets users of flat-file...

15/3,K/28

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00061059 DOCUMENT TYPE: Review

PRODUCT NAMES: PaBLO (464686)

TITLE: Pablo Reporting Tool Helps Analyze Business Databases  
AUTHOR: Coopee, Todd  
SOURCE: MacWEEK, v8 n6 p1(3) Feb 7, 1994  
ISSN: 0892-8118  
HOMEPAGE: <http://www.macweek.com>

RECORD TYPE: Review  
REVIEW TYPE: Review  
GRADE: B

REVISION DATE: 20020516

...data. Data must be restructured into the HyperCube format, which may be challenging and complicated. HyperCube, unlike a relational database which uses multiple tables, is actually a single multidimensional table of data. HyperCubes can store.

Set	Items	Description
S1	138711	RDBMS OR RDB OR RELATIONAL() (DATABASE? OR DATA()BASE? OR D-B)
S2	667433	DIMENSION?
S3	12843213	REPORT? OR BLOCK? ? OR OBJECT? OR OLAP? OR ANALYTIC?()REPO-RT?
S4	83582	DRILLDOWN OR DRILL?()DOWN? OR DATAMIN? OR DATA()MINING?
S5	5326	((MULTI OR 3 OR THREE)() (DIMENSION?) OR 3D OR THREED)() (DB OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?)) OR DATACUBE? OR HYPERCUBE? OR (DATA OR HYPER)()CUBE?
S6	63	S1(S) (S2 OR S5) (S)S3(S)S4
S7	8	S6(S) (DRAG? OR DROP? OR XML OR CLICK? OR CUT(N)PASTE OR GUI OR GRAPHIC?()USER?()INTERFACE?)
S8	28	S6(S) (REPORT? OR REPLY OR REPLIES OR ANSWER?)
S9	496	(MICROSOFT OR MS)()OLAP OR COGNOS()CUBE?
S10	26	S1(S)S9
S11	58	S7 OR S8 OR S10
S12	41	RD (unique items)
S13	40	S12 NOT PY>2000
S14	37	S13 NOT PD>20000403
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File 47:Gale Group Magazine DB(TM) 1959-2003/Mar 27		
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File 613:PR Newswire 1999-2003/Mar 31		
(c) 2003 PR Newswire Association Inc		
File 813:PR Newswire 1987-1999/Apr 30		
(c) 1999 PR Newswire Association Inc		
File 141:Readers Guide 1983-2003/Feb		
(c) 2003 The HW Wilson Co		
File 696:DIALOG Telecom. Newsletters 1995-2003/Mar 31		
(c) 2003 The Dialog Corp.		
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Mar 28		
(c) 2003 The Gale Group		
File 674:Computer News Fulltext 1989-2003/Mar W2		
(c) 2003 IDG Communications		
File 369:New Scientist 1994-2003/Mar W3		
(c) 2003 Reed Business Information Ltd.		
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(c) 1999 The Gale Group		
File 635:Business Dateline(R) 1985-2003/Mar 29		
(c) 2003 ProQuest Info&Learning		
File 15:ABI/Inform(R) 1971-2003/Mar 31		
(c) 2003 ProQuest Info&Learning		
File 9:Business & Industry(R) Jul/1994-2003/Mar 28		
(c) 2003 Resp. DB Svcs.		
File 13:BAMP 2003/Mar W4		
(c) 2003 Resp. DB Svcs.		
File 810:Business Wire 1986-1999/Feb 28		
(c) 1999 Business Wire		
File 610:Business Wire 1999-2003/Mar 31		
(c) 2003 Business Wire.		
File 647:CMP Computer Fulltext 1988-2003/Mar W2		
(c) 2003 CMP Media, LLC		
File 98:General Sci Abs/Full-Text 1984-2003/Feb		
(c) 2003 The HW Wilson Co.		
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*Full-Text*

14/3,K/1 (Item 1 from file: 275)  
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02360026 SUPPLIER NUMBER: 58379341 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
From OLTP Data to Dimensional Data Mart. (Cognos' DecisionStream 6.0.47  
decision support software) (Software Review) (Evaluation)  
SCHUMACHER, ROBIN  
Intelligent Enterprise, 2, 18, 56  
Dec 21, 1999  
DOCUMENT TYPE: Evaluation LANGUAGE: English RECORD TYPE: Fulltext  
; Abstract  
WORD COUNT: 1574 LINE COUNT: 00128

... dimensional framework. The build window does (what else?) the builds.

DecisionStream supports all the favorite relational database players including Oracle, Informix, Sybase, Microsoft SQL Server, DB2, and ODBC, as well as OLAP engines Essbase, Oracle Express, and Microsoft OLAP Services. It also has its own driver that lets it work with ASCII or EBCDIC...

14/3,K/2 (Item 2 from file: 275)  
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02273541 SUPPLIER NUMBER: 53975016 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
M&A IMPACT: BRIO-SQRIIBE MERGER RAISES NEW QUERIES.  
Computergram International, NA  
March 1, 1999  
ISSN: 0268-716X LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 1035 LINE COUNT: 00085

TEXT:

...layers of its software are steadily being devalued by work now well underway at Redmond. Microsoft OLAP technology strategy has led to a situation where a company only requires a browser or another ActiveX-based client, the Microsoft repository, Plato and SQL Server (or some other relational database ) to easily build a Brio look-alike from a few relatively thin layers of software...

14/3,K/3 (Item 3 from file: 275)  
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02084896 SUPPLIER NUMBER: 19604554 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Diver discovers open databases. (Dimensional Insight's DI-Diver 6.0  
database access software) (Product Announcement)  
Greenemeier, Larry  
MIDRANGE Systems, v10, n9, p60(1)  
June 13, 1997  
DOCUMENT TYPE: Product Announcement ISSN: 1041-8237 LANGUAGE:  
English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 601 LINE COUNT: 00050

...ABSTRACT: drill down into a database in response to different query types. The software's Relational OLAP (ROLAP) features especially help with this function. The software can deliver reports in HTML form so they can be distributed over the Internet or a corporate intranet.

14/3,K/4 (Item 4 from file: 275)  
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02002103 SUPPLIER NUMBER: 18838918 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Microsoft OLAP purchase should benefit SQL Server. (Microsoft to enhance its SQL Server relational database with OLAP product purchased from Panorama Software Systems) (Product Announcement) (Brief Article)

Perez, Juan Carlos

PC Week, v13, n44, p132(1)

Nov 4, 1996

DOCUMENT TYPE: Product Announcement Brief Article

ISSN: 0740-1604

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 319 LINE COUNT: 00028

Microsoft OLAP purchase should benefit SQL Server. (Microsoft to enhance its SQL Server relational database with OLAP product purchased from Panorama Software Systems) (Product Announcement) (Brief Article)

14/3,K/5 (Item 5 from file: 275)

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01926000 SUPPLIER NUMBER: 18203245 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Cognos scores with PowerPlay update. (PowerPlay 5.0 decision support software) (Software Review) (Evaluation)

Taschek, John

PC Week, v13, n15, p1(2)

April 15, 1996

DOCUMENT TYPE: Evaluation ISSN: 0740-1604

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 586 LINE COUNT: 00049

...ABSTRACT: improved interface. Version 5.0 includes a customizable tool bar, supports the embedding of OLE objects into views and provides for multilevel undo capability. PowerPlay operates with more precision, ease and...

...database information into multi-dimensional displays. Data views can be modified with relative ease via drag -and- drop technology, and PowerPlay's drill - down speed is extremely impressive.

14/3,K/6 (Item 6 from file: 275)

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01870781 SUPPLIER NUMBER: 17600108 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Holistic Systems Inc. (OLAP Product Directory) (Brief Article) (Directory)

Tangermann, Birgitt

Data Based Advisor, v13, n11, p51(1)

Dec, 1995

DOCUMENT TYPE: Brief Article Directory

ISSN: 0740-5200

LANGUAGE:

English RECORD TYPE: Fulltext

WORD COUNT: 143 LINE COUNT: 00016

Holos 4.0

Integrated tool that allows multi- dimensional applications to map directly onto data in underlying relational systems and combines EIS an DSS ...

...sales an marketing, stock analysis, cost breakdown forecasting and variance, manpower analysis, and project-cost reporting Features multi-dimensional drill - down facilities, providing access to underlying operational data. Provides screen an printed reports encompassing tabular data text, graphics and images. Accesses business modeling, analysis and forecasting techniques from an EIS environment Provides multi- dimensional worksheet view of data. Automatically generates SQ for links to relational databases .

Hardware/Software required-DEC VAX, Alpha AXP/VMS, Windows NT, IBM

14/3,K/7 (Item 7 from file: 275)  
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01870775 SUPPLIER NUMBER: 17600096 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Arbor Software Corp. (OLAP Product Directory) (Brief Article) (Directory)  
Tangermann, Birgitt  
Data Based Advisor, v13, n11, p50(1)  
Dec, 1995  
DOCUMENT TYPE: Brief Article Directory ISSN: 0740-5200 LANGUAGE:  
English RECORD TYPE: Fulltext  
WORD COUNT: 155 LINE COUNT: 00017

Essbase Analysis Server (V.3.2)  
An OLAP database server for mission-critical analysis of current and projected enterprise performance data. Automates deployment of enterprise data warehousing systems by linking OLAP applications with detailed data stored in relational database. Applies the program's ad hoc capabilities to evaluate multiple product line and distribution channel scenarios. A multi-dimensional capability aids in variance reporting and cross-fiscal year comparisons. Program features can be applied to both complex and data intensive applications. Lets the user actively manage the relationships between multiple dimensions of spreadsheet data, providing a whole-picture summary view, while following drill - down requests for subsequent layers of detail. Provides support for Windows, Macintosh, OS/2, and UNIX...

14/3,K/8 (Item 8 from file: 275)  
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01807407 SUPPLIER NUMBER: 17296378 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
The flavors of OLAP. (includes related OLAP case study, article on OLAP versus ad hoc report writing tools and glossary of terms)  
Callaway, Erin  
PC Week, v12, n28, p14(2)  
July 17, 1995  
ISSN: 0740-1604 LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 1758 LINE COUNT: 00140

... Understand the differences, and you can team them together to create a dynamic data drill.

OLAP (online-analytical processing), which uses terms like "dimensions," "drill down," and "roll up," allows users to gather summary information or aggregates. In comparison, ad hoc query and report writing tools give a "pretty" face to relational databases, helping users access detailed information, such as lists of names and addresses.  
Users at Moen...

14/3,K/9 (Item 9 from file: 275)  
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01616941 SUPPLIER NUMBER: 14208444 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Accumate analyzes corporate-wide data. (Kenan Technologies' search software) (Brief Article) (Product Announcement)  
Data Based Advisor, v11, n8, p30(2)  
August, 1993  
DOCUMENT TYPE: Product Announcement ISSN: 0740-5200 LANGUAGE:  
ENGLISH RECORD TYPE: FULLTEXT  
WORD COUNT: 94 LINE COUNT: 00007

TEXT:

Kenan Technologies released Acumate, an end-user data analysis and application development tool. Acumate includes reporting and graphical interface tools for retrieving and analyzing DB2, Informix, Ingres, SQL Server, Oracle, and Rdb data and flat-file and non-SQL tables via a PC-host link. Retrieved data is stored in multi-dimensional arrays, and can be drilled down, rolled up, and rotated through views that can be customized.

14/3,K/10 (Item 1 from file: 636)  
DIALOG(R)File 636:Gale Group Newsletter DB(TM)  
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04899568 Supplier Number: 67373103 (USE FORMAT 7 FOR FULLTEXT)  
Inside information.  
Computer Business Review, v7, n6, p51  
June, 1999  
Language: English Record Type: Fulltext  
Document Type: Newsletter; Trade  
Word Count: 1657

... the increased overlap between relational database and OLAP technology.

"The upshot of the birth of Microsoft OLAP services, and of hybrids of multi-dimensional OLAP and relational databases, has been that analysts stopped debating the merits of multidimensional OLAP, relational OLAP, hybrid OLAP...

14/3,K/11 (Item 2 from file: 636)  
DIALOG(R)File 636:Gale Group Newsletter DB(TM)  
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04829970 Supplier Number: 64509305 (USE FORMAT 7 FOR FULLTEXT)  
inSight and dynaSight now available for Hyperion Enterprise.  
M2 Presswire, pNA  
July 12, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 586

... API or the new standard for multi-dimensional connectivity, OLE DB for OLAP), and all relational databases via ODBC. This includes, for example, access to Hyperion Essbase, Hyperion Enterprise, Oracle Express, Oracle Server, Microsoft OLAP Services, Microsoft SQL Server, Applix TMI, MIS Alea, MIKsolution, Informix Metacube and Sybase Warehouse Studio

14/3,K/12 (Item 3 from file: 636)  
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04426091 Supplier Number: 55714498 (USE FORMAT 7 FOR FULLTEXT)  
ARCEPLAN: The ideal match -- inSight and dynaSight fo for Hyperion Essbase  
6.  
M2 Presswire, pNA  
Sept 9, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 728

... API or the new standard for multi-dimensional connectivity, OLE DB for OLAP), and all relational databases via ODBC. This includes, for example, access to Hyperion Essbase, Hyperion Enterprise, Oracle Express, Oracle Server, Microsoft OLAP Services, Microsoft SQL Server, Applix TMI, MIS Alea, MIKsolution, Informix Metacube and Sybase Warehouse Studio



14/3,K/13 (Item 4 from file: 636)  
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04392925 Supplier Number: 55299502 (USE FORMAT 7 FOR FULLTEXT)  
ARCPLAN: New partnership between arcplan and Origin >T.  
M2 Presswire, pNA  
July 28, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 826

... OLAP databases (via native APIs or multi- dimensional connectivity, OLE DB for OLAP), and all relational databases via ODBC. This includes, for example, access to Hyperion Essbase, Hyperion Enterprise, Oracle Express, Oracle Server, Microsoft OLAP Services, Microsoft SQL Server, Applix TM1, MIS Alea, MIKsolution, Informix Metacube and Sybase Warehouse Studio...

14/3,K/14 (Item 5 from file: 636)  
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04217850 Supplier Number: 55119548 (USE FORMAT 7 FOR FULLTEXT)  
ARCPLAN INFORMATION SERVICES: inSight and dynaSight now available for Hyperion Enterprise.  
M2 Presswire, pNA  
July 9, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 565

... API or the new standard for multi-dimensional connectivity, OLE DB for OLAP), and all relational databases via ODBC. This includes, for example, access to Hyperion Essbase, Hyperion Enterprise, Oracle Express, Oracle Server, Microsoft OLAP Services, Microsoft SQL Server, Applix TM1, MIS Alea, MIKsolution, Informix Metacube and Sybase Warehouse Studio  
...

14/3,K/15 (Item 6 from file: 636)  
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04191333 Supplier Number: 54826618 (USE FORMAT 7 FOR FULLTEXT)  
ARCPLAN: dynaSight turns Internet into custom database.  
M2 Presswire, pNA  
June 7, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 538

... the new standard for multi-dimensional databases, OLE DB for OLAP, as well as all relational databases via ODBC. Examples include access to Oracle Express, Oracle Server, Microsoft OLAP Services, Microsoft SQL Server, Hyperion Essbase, Hyperion Enterprise, Applix TM1, MIS Alea, MIKsolution, Informix Metacube...

14/3,K/16 (Item 7 from file: 636)  
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04184208 Supplier Number: 54744634 (USE FORMAT 7 FOR FULLTEXT)  
ARCPLAN: Award -- arcplan among 'Data Warehouse Elite'.